

American Artisan

Founded 1880

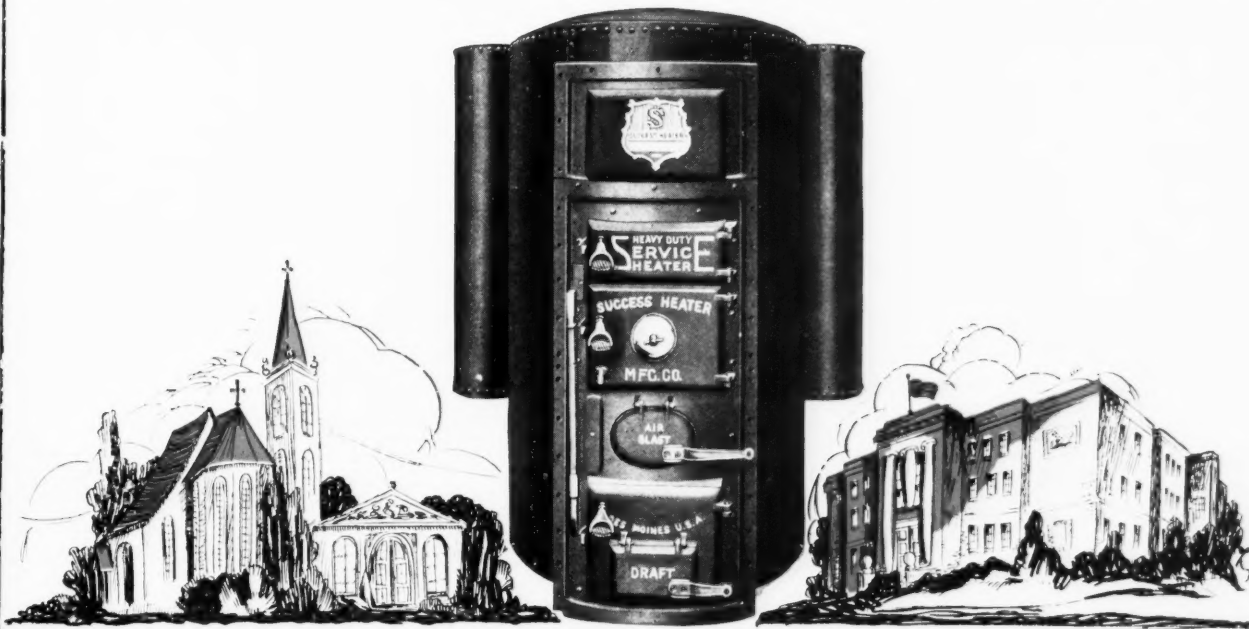
The Warm Air Heating and Sheet Metal Journal

Vol. 98, No. 7

CHICAGO, AUGUST 17, 1929

\$2.00 Per Year

The Heater for the BIG jobs



The SUCCESS HEAVY DUTY HEATER

for heating
large

CHURCHES — BUILDINGS — SCHOOLS

THE amount of heat that is required for the big fan blast jobs can be supplied only by a heater designed for the purpose.

The SUCCESS HEAVY DUTY is made in large sizes and has extra size twin radiators.

Exceptional amount of heating surface and extensive grate surface are two more outstanding features.

Seamless, leakproof construction of highest quality material, gives assurance of lifetime service and satisfaction, with either coal or oil.

Write for the Success Catalog today

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Des Moines, Iowa

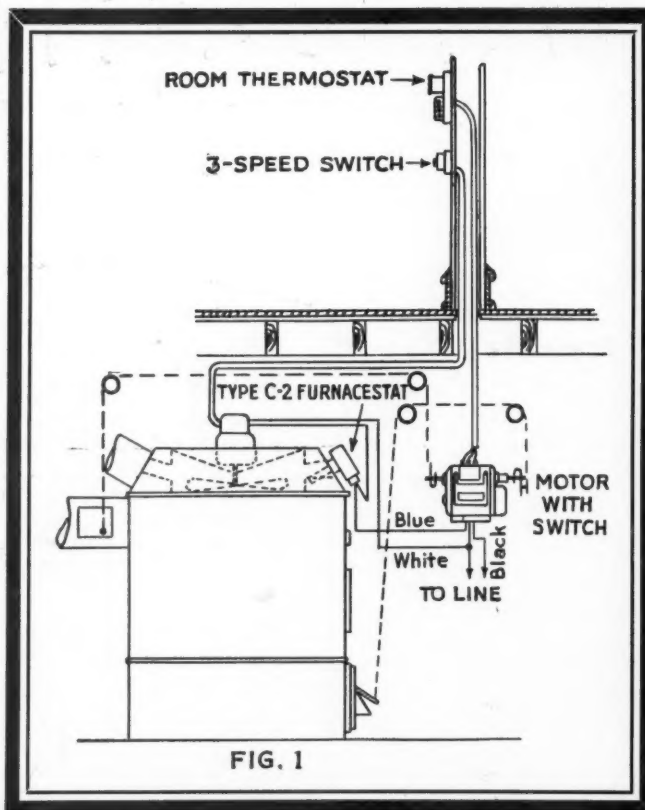
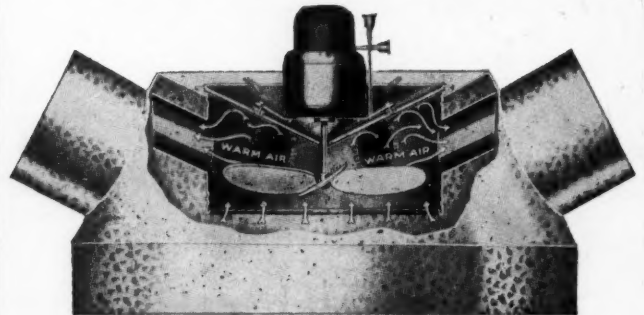


FIG. 1

Now
Available
for Hook-Up
with the
FURNACESTAT



Because response to room temperature, as well as to furnace temperature, is essential for the ideal automatic control of a furnace fan, the

ROBINSON

Heat Distributor

is now made available for control by the Minneapolis-Honeywell
Type C-2 Furnacestat.

THE diagram above shows the ideal method for automatic control of the Robinson Heat Distributor in conjunction with control of the furnace draft and check.

Three control units are employed: The Jewell Room Thermostat, the Jewell electric motor with switch and the C-2 Furnacestat.

The Furnacestat is a thermostatically operated mer-

cury tube switch, actuated by the temperature of the air in the furnace casing. It prevents the fan from circulating cold air, because the circuit to the fan is kept open until the furnace reaches the degree at which the Furnacestat is set. The self-contained switch in the motor controls the fan circuit and will not allow the fan to operate unless the Room Thermostat is calling for heat, regardless of the air temperature at the furnace.

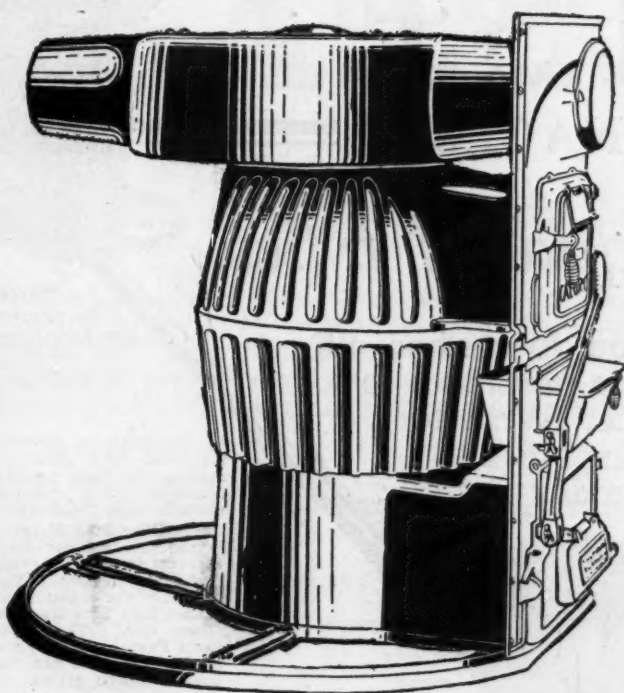
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Massillon, Ohio

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FARRIS FURNACE CO., Springfield, Ill.
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FOLLANSBEE BROTHERS CO., Pittsburgh, Rochester, Cincinnati, Memphis, Detroit, Indianapolis, Milwaukee, Louisville.
FLORAL CITY HEATER CO., Monroe, Mich.
FOX FURNACE CO., Elyria, Ohio
HEATING & SUPPLY CO., Pittsburgh, Pa.
HENRY FURNACE & FOUNDRY CO., Cleveland, O.; Indianapolis, Ind.; Pittsburgh, Pa.
M. K. HOKE, Manheim, Pa.

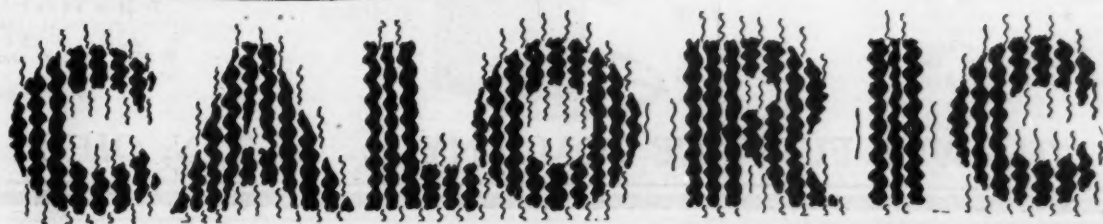
HOMER FURNACE CO., Coldwater, Mich.
IDEAL FURNACE CO., Detroit, Mich.
INTERNATIONAL HEATER CO., Utica, Chicago, Cleveland, Nashua, New Hampshire, Longbranch, N. J.
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THE OHIO SHEET METAL & MFG. CO., Dayton, Ohio
J. M. & L. A. OSBORN CO., Cleveland, O.; Buffalo, N. Y.
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PORTLAND STOVE FOUNDRY CO., Portland, Maine
RICHARDSON & BOYNTON CO., New York, Chicago, Boston, Philadelphia, Buffalo, Minneapolis, Newark, N. J.
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A MASTER FURNACE

MADE with every convenience for the user, and with so many points of excellence that it is easy for the dealer to sell. A staunch, durable, dependable, and economical furnace, manufactured and backed up by a concern with fifty years' experience in warm air heating.



NOTICE THESE SELLING FEATURES

Roller bearing agitator type of grate
Upright waist high shaker handle
One or two-piece double ribbed firepot
Large corrugated feed section
One-piece seamless radiator with smoke and cleanout collars cast on
Full cast front with expansion joint

Large well-proportioned corset type casings with one-inch air space insulation
Low construction for shallow basements
Deep well designed cup joints
Velvet smooth uniform castings
Large water pan with lock-open cover
Attractive dealer franchises open in many places, send for catalogs and dealer proposition.

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In November, 1928, this Company purchased from the Receiver for the Monitor Furnace Company all of the original master and working patterns for *Caloric*, *Monitor*, *Kleenaire*, *Big Boy*, and *Merrimac* furnaces, and this is the only company authorized by the courts to continue the manufacture and sale of these products.

Repair parts made from the original patterns is the only way you can be assured of a perfect fit.

Send all repair orders to Marshall

MONITOR-CALORIC DIVISION
MARSHALL FURNACE CO. MARSHALL, MICHIGAN



WISE

FURNACES

3 high quality types

—Enabling you to confine all your furnace purchases to one source. Write for Catalog No. 23 today



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OPEN DOME
CAST FURNACE**

BOTH the Open Dome and the Wise 20 Series have a new Cellular Firepot. It is One-piece and extra heavy. The Open Dome also has a new Elbow Shaped Flue Collar on the inside, turned up so all the heat must follow the castings to the top.

The 20 Series, besides having the newly designed Cellular firepot, has a new Patented Radiator. The feed chamber and the top of the radiator are constructed so as to allow communication between them which brings the opening of the fire flues



**NEW
WISE**

**STEEL
FURNACE**



**WISE
20 SERIES
CAST FURNACE**

of the radiator directly into the feed chamber, making the flues readily accessible for cleaning through upper feed door.

The Wise Steel Furnace is not just another steel furnace but one having exclusive features. The bottom of the radiator has a Cast Iron Soot Box and Clean - Out. The Wise Steel Furnace is both riveted and welded and has special design grates.

It is a steel furnace that you will instantly recognize as having WISE quality and distinctiveness.

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VERNOIS Furnaces are extremely economical to operate and will burn hard coal, coke, wood and even cheap grades of soft coal without clogging or choking.

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Wide, deep Lock-cup Joints making a permanent dust and air tight fit.

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MT. VERNON, ILL.



Vernois

FURNACES



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AND CIRCULATORS**



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BRIEF AND TO THE POINT

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FOR STOVES AND HEATERS FIRST-CLASS IN WOOD and IRON
VEDDER PATTERN WORKS ESTABLISHED 1835 TROY, N. Y.

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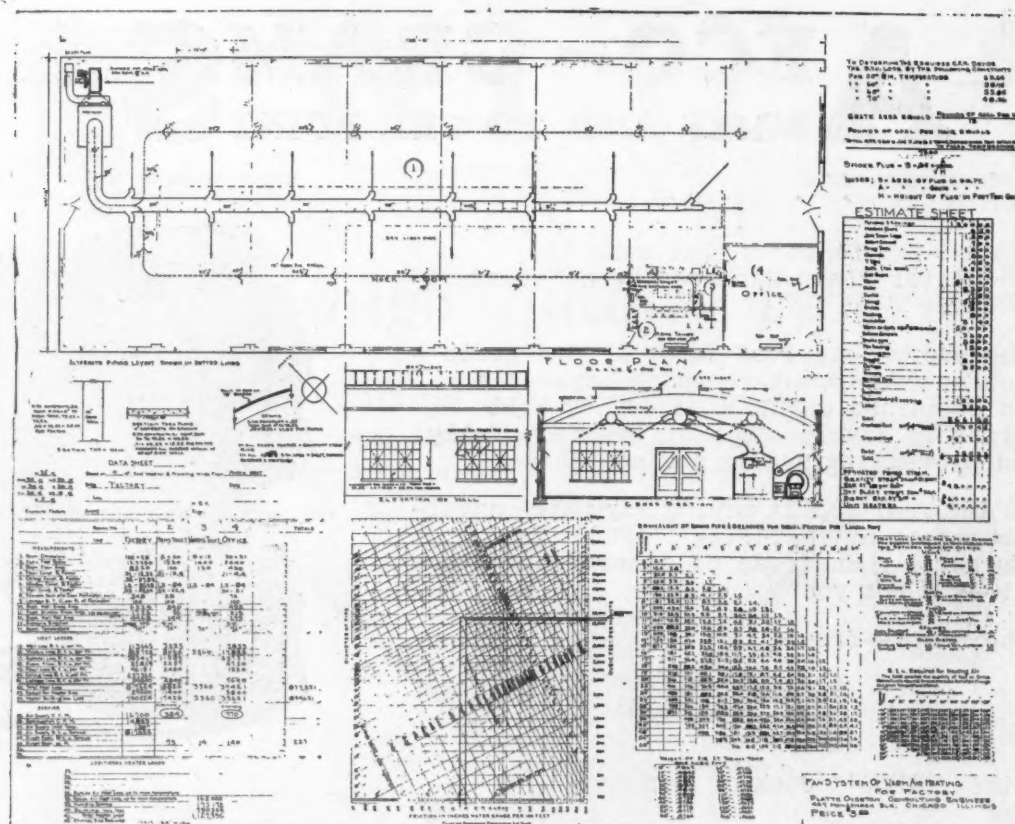
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4 to 6 jobs a day—one man—powerful—light.

WITH a Super Service Cleaner on his staff he had 178 cleaning jobs at \$7 to \$8 each, averaging 50% net profit. One-half of them brought in repair work also, including 15 overhauls at \$50 each. He sold 9 furnaces to new prospects—and the season is still young.

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NOW with this help you can handle the BIG heating contracts

IF you are a live progressive warm air heating and sheet metal contractor and if you have been passing up the Big *Fan Blast* Warm Air Heating jobs because you lacked the proper *engineering* information to tackle this type of job, *this service* is just what you have been waiting for.

This service, which consists of complete plans and engineering information, won't make you an engineer, but if you know how to read plans, charts, graphs, and tables and know how to figure grate areas, heat losses, pipe sizes, etc., *when you are shown how with complete data and correct formula*, you will realize the great value of this information and be able to use it profitably.

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ENGINEERING PLANS for FAN BLAST Warm Air Heating and Ventilating

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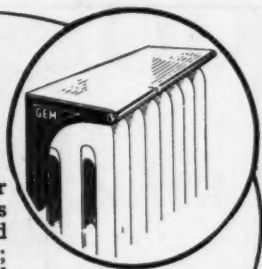
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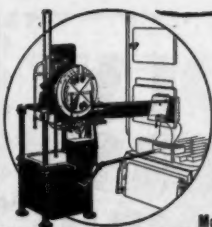
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These clues help us to help you.

AMERICAN ARTISAN**Efficiency
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PEOPLE want color,—so we are giving it to them, Autumn Red, the most fitting color for a furnace front.

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There is money for you in the Moncrief Proposition. Send for particulars.

The Henry Furnace & Foundry Co.
3471 E. 49th St., Cleveland, O.

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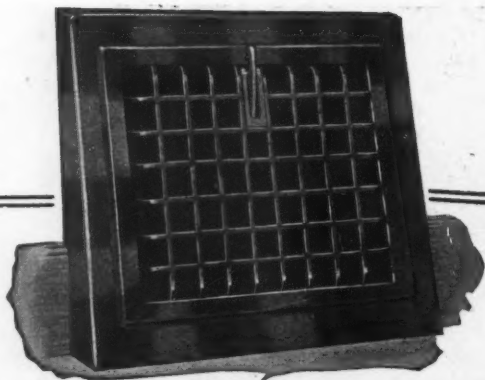
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We supply everything used on
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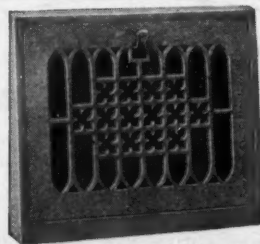
of all registers, combining air capacity, decorative and concealing features.

Designed to conform with the Standard Code so they fit all standard boxes.

Auer Patented mechanical features make it perfect in operation,—quick and easy to install.

Auer's Save Hours and Dollars

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Cleveland, Ohio



The "Tudor" Style 700
Baseboard Register

TUTTLE & BAILEY
SUPER-REGS

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COMPRISE
EVERY TYPE REGISTER
AND FACE FOR
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Stocks carried in all principal cities

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Look for the New Colonial Baseboard Register
in the August 31 issue

KU - NO



Locking
Wing

PATENTED

No Jar
or
Vibration

Newest and Most Practical WARM AIR REGISTER

NONE so simple to install, none so positive in operation and its **PATENTED** construction makes it the easiest to keep clean.

It is by far the outstanding **FREE AREA REGISTER**—notice the absolute minimum in air resistance and the attractive appearance presented by this simple design.

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Write for illustrated circular and prices—give us your jobber's name.

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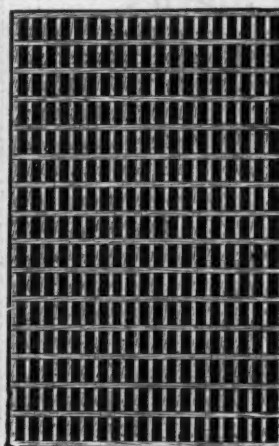
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WHEN you order wood registers be sure of getting the best by buying these famous wood faces—

*Known as the finest
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They add extra value without extra cost. We make nothing but Wood Registers and only the best.

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Please send free samples of Segments, Pipe Joint Tape,
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GUARANTEE your customers **HUMIDIFIED**
warm air heating by installing a—

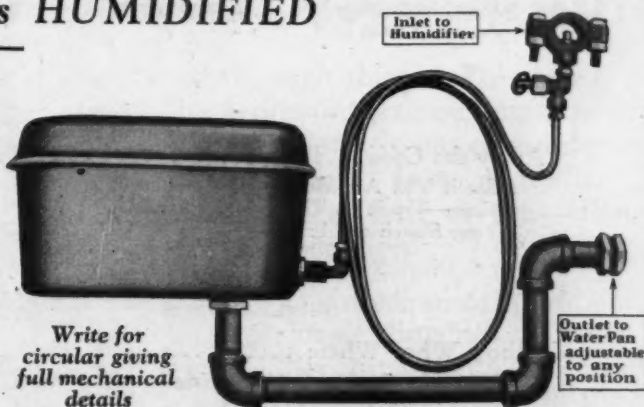
SKUTTLE
Automatic
HUMIDIFIER

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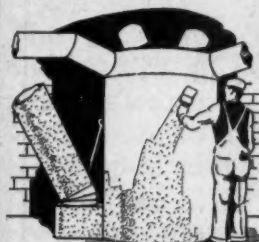
It's a real money maker—easy to sell and easy to install. It fits any make of furnace having a water pan.

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BRAND new numbers in attractive fadeless colors in furnace covering, coating, and insulation. **JUST WHAT YOU NEED** to increase your sales. Each attractive installation sells another. Spreads with a brush. Easy to apply—no cutting and fitting—no paste. **TAKES THE PLACE OF ASBESTOS PAPER** on old or new furnaces. Apply over tin, galvanized iron, or paper covered surfaces. **MAKE THE INSTALLATION 100% SEAMLESS** with **LIQUID ASBESTOS**, the tailor-made suit for every furnace.

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HELPS INCREASE SALES. A trial order is convincing. There are many reasons why every furnace dealer should know about **LIQUID ASBESTOS**. It's far superior to any other covering.

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Dealers who are using **LIQUID ASBESTOS** are getting surprising results. Ask for our **SPECIAL DEALERS' PRICES TODAY.**

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Our New Self-Locking Double Stack

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Founded 1880

American Artisan

The Warm Air Heating and Sheet Metal Journal

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United States\$2.00
Canada\$3.00
Foreign\$4.00

Published EVERY SATURDAY—to Promote Better Warm Air Heating and Sheet Metal Work

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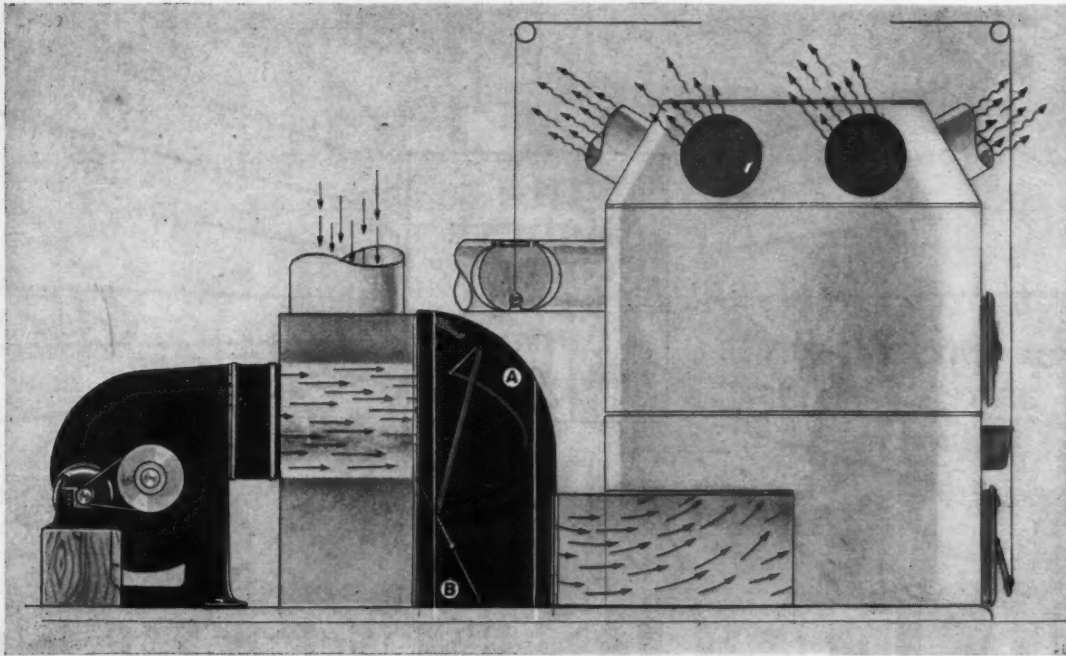
Vol. 98, No. 7

CHICAGO, AUGUST 17, 1929

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Typical installation with fan in operation—Master Damper A open; Gravity Damper B closed. When fan is not in operation, position of dampers automatically reversed. Fan can be thermostatically controlled.

New! a Better Forced Air System for Better Class Installations

THIS new furnace fan outfit, the Brundage Forced Air System, will put you in line for business you have not been able to touch before.

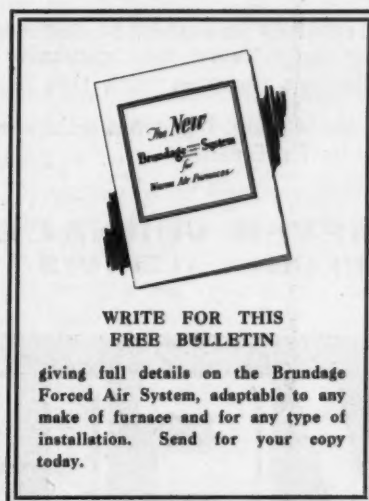
Better class homes, schools, churches, garages and industrial plants—where equipment is usually purchased on the basis of results produced instead of on lowest price—these are the kind of jobs you can get. *And these are the very jobs where the best money lies.*

The Brundage System embodies the most advanced ideas in warm air circulating—years ahead of its time. It is equipped with a centrifugal fan, the only type of fan generally approved by architects and State Laws where air is

delivered through ducts. This fan is positive. Regardless of size or length of pipes, under all conditions, it forces ample warm air to every room. Tests prove it. The fan is slow speed, belt driven—silent in operation.

The mechanical dampers are simple beyond compare, therefore, entirely trouble-free. In fact, here for the first time, is a system that you can back to the limit and absolutely guarantee.

Go after this better profit work, using the furnace you now handle. You can sell efficient, low cost heating *plus ventilation*—something the steam and hot water can't give. Here's a proposition too good to pass up!



The BRUNDAGE COMPANY

246 W. KALAMAZOO AVE., KALAMAZOO, MICHIGAN

Say you saw it in AMERICAN ARTISAN—Thank you!



AND PUBLIC PREFERENCE.

WHEN a man finds himself in the market for a heating system, and this means at some time or other, every home owner or prospective home owner, to say nothing of individual members of school boards, church building committees, etc., he is primarily interested in *heating satisfaction*.

Past experience notwithstanding, *TODAY price* is of less consideration than most of us are willing to believe. It is, of course, only human to want the most for little money, *BUT it is more human to desire the finest to be had.*

The warm air heating industry in the past few years has begun to see the truth of this reasoning. In the last year more and further steps have been taken to sell the public what it prefers—namely fine and even expensive warm air heating systems.

The Weir has always been high quality—today it is more than ever the highest quality steel furnace on the market.

It is the ideal furnace for every type of warm air installation because of its outstanding quality and distinctive features.

Many dealers who previously experienced the very poorest kind of business have found it much easier and naturally more profitable to sell high grade installations together with this high grade furnace.

Weir dealers always build sound profitable business with the Weir because it satisfies Public Preference.

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PEORIA-ILLINOIS**

**The
Original
Steel Furnace
Now In Its
Forty-Seventh
Year**

WEIR

**Made by
The Founders
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Furnace
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Mention AMERICAN ARTISAN in your reply—Thank you!



Intelligent Use of Mechanic's Lien Laws to Protect Against Credit Loss

Why Many Furnace Installers Find They Are Denied Protection of State Lien Law

By C. L. Jamison,
*Professor Business Administration,
University of Wisconsin,
Madison, Wis.*

THE product of the sheet metal contractor is one that can not well be sold on a cash basis. The purchaser generally is unwilling to pay until the work is finished and is found to be satisfactory. If all purchasers were willing to pay then, the business would not present a serious credit problem.

It happens, however, that many purchasers are unable to pay promptly, especially if repairs or replacements are made in old buildings. Much work of that nature is ordered in an emergency, for the financing of which the owner has not made adequate provision in advance. In many new buildings, too, there is a credit problem. The general contractor does not always pay the subcontractor.

Slow accounts are costly for two reasons. First, because it is costly

Explaining How Credit Losses Can Be Minimized, and the Mechanic's Lien as Substitute for Repossession

to carry the capital tied up in accounts receivable, and, second, because a slow account may lapse into an uncollectible account. The cost of carrying slow accounts may be measured merely by the interest on money borrowed from the bank, or it may be measured by the profit that could be earned on the money if it were released for further use in the business. The ultimate loss of an account is a serious loss that every business man should try to avoid.

A person who sets out to improve the credit situation in the sheet metal industry should give consideration not only to the ultimate loss of accounts, but also to the problem of speeding up the collection of slow accounts.

When one person gains possession of goods for which he promises to pay another person at some future

time, there always is a chance that the debtor may never pay. It has been found, however, from experience that the chance of nonpayment is so remote as to cause but a slight loss on the aggregate of credit sales. It has been found that even long terms can be given with a minimum of danger of loss.

Much can be learned about minimizing credit risks by studying the methods of installment finance houses. The following principles have been laid down for sound installment finance operations:

1. The article sold must be one which is not rapidly consumed in use.
2. An initial payment always must be exacted sufficiently large so that the purchaser has a real equity in the article. His self-interest will then prompt him to continue the payments.
3. The term of payment must not be extended over a longer period than the life of the article.
4. The installment payments should not exceed the ability of the debtor to pay.
5. Each installment payment should exceed the proportional deterioration of the article so that the purchaser's margin of equity will be steadily increased.

Mechanic's Lien as a Substitute for Repossession

The adaptation of the principles of the installment finance companies to sheet metal installations would do much to strengthen credits in that line of business. The remedy, however, that is open to installment finance companies of repossessing the article when payments have been defaulted is not open to contractors that install warm air heating plants, cornices and the like. The nearest one can come to repossessing such articles is to file a mechanic's lien or a material man's lien against the property on which the installation has been made.

Mechanic's lien laws were primarily designed to secure the wages of workmen. In many states they do not give much protection to material men who have sold on reasonably long credit terms. It is quite clear that if a merchant agrees to terms of 30 days or 60 days he can not press payment until the expiration of the terms.

Suppose the terms are 60 days. At the expiration of 60 days the account is not paid, and there is indication that the purchaser is not in position to pay. The materials that have been fashioned to suit the requirements of the purchaser and have been installed in a building can not be repossessed as can an automobile or a washing machine. The security of the debt lies in filing a lien against the property on which the work has been done.

But an investigation of the mechanic's lien laws may reveal the requirements that a lien must be filed within 30 days after the completion of the work, as is the case in California, Massachusetts and several other states. The protection of the mechanic's lien, in that case, is not available. Even in states which allow 60 days for filing a lien, such as Michigan, Vir-

ginia and Wisconsin, terms of 60 days would be too long to permit the use of a mechanic's lien. There are many states that allow from four to six months for filing. In cases of normal credit terms, such laws would allow resort to a mechanic's lien. In cases of long terms providing for partial payments, however, the privilege of filing a lien would hardly be available in any state.

Moreover, it must be shown that the labor was performed or the materials were furnished upon the credit of the building in which they were used, and not merely upon the general credit of the owner or con-

Now that we have explained installment selling and how trouble arises from the abuse of the practice rather than the practice itself, we are presenting herewith an article dealing with avenues by which the furnace installer who takes the trouble can further protect himself against losses from non-payment.

In this article, Professor Jamison has pointed out the manner in which the Mechanic's Lien Laws of various states can be invoked to protect the furnace installer or sheet metal contractor who supplies products that are permanently attached to buildings or cut to specification, or altered in some way or other so that their value would be unduly depreciated in case of necessary repossession.

tractor. It is well to remember, also, that in some states a subcontractor's lien is subordinate to the claim of the general contractor. The subcontractor can recover no more than is due from the owner to the contractor. In other states the owner can not make the defense that he already has paid the general contractor.

Threat of Repossession Aids in Making Collections

There can be little doubt that the low ratio of losses in installment financing is due almost entirely to the threat of repossession. Moreover, when it becomes necessary to

repossess an article, the unpaid balance, if the finance company is properly managed, is less than the resale value of the article. Terms of payment are rigidly enforced. There is no temporizing when a debtor falls behind. If the same rigid insistence upon the observance of terms were followed in other lines, backed by the power to dispossess the defaulting debtor of the property, credit losses everywhere would be less than they are.

Uniform Mechanic's Lien Laws Desirable

It seems that for sheet metal contractors the power of filing a lien on the property that has been improved by their work is the best available substitute for repossession. In many states the mechanic's lien laws need revision to provide adequate protection.

Uniform laws in all the states would remove many complicating technicalities that now defeat the purpose of the laws. Certainly the limitation on the filing date should be made to conform with credit terms. Considered inversely, credit terms should be made with an eye on the ultimate availability of a mechanic's lien. After that, a rigid and unflinching insistence upon the immediate pay-

ment of accounts according to the terms of payment, with drastic action the day a default has occurred, ought to result in speeding up the collection of accounts and the prevention of their ultimate loss.

George McLaughlin Advanced by American Sheet and Tin Plate Co.

George McLaughlin, who, for a number of years, has been a well-known member of the Cincinnati office of the American Sheet and Tin Plate Company, has been made assistant manager of sales of the Cincinnati office. He is well qualified for the position.

How Would YOU Apply the CODE on This Job?—WHAT WOULD YOU CHARGE?

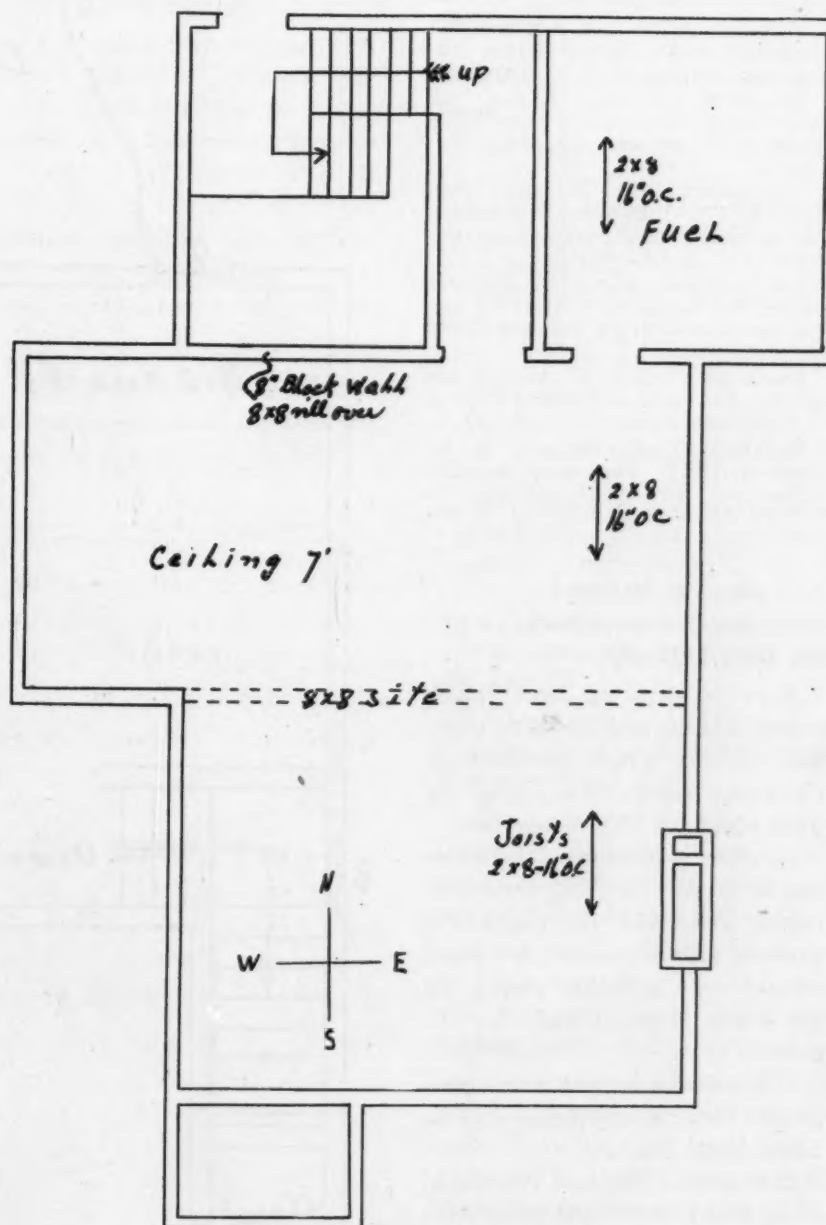
FROM observation and hearsay we are convinced that there are still a large number of warm air furnace installers who do not understand the proper application of the Standard Code. In order to give warm air furnace installers a chance to test their knowledge in this respect there is reproduced herewith the floor plans of a new brick veneer bungalow.

The ceilings on the first floor are 8 feet high. On the second floor they are the same, while in the basement the ceiling is 7 feet high. The chimney is 12x12 inches.

All the data necessary for the application of the Standard Code is given on the floor plans. In addition you will note that there is a semi-exposed wall on the attic floor. In the basement a concrete wall separates a portion of the main room and it is entirely possible that a warm air duct may have to be run through this wall. In running the warm air duct through the wall, indicate how you would do this; that is, whether you would cement the duct tightly to the wall or use a collar providing an air space between the duct and the wall.

A price at which this job sold has been placed upon the job which is correct for the locality in which the job was installed. That price, of course, would not hold for all sections of the country, but if the installers will put their own prices upon the sketch when they return it, this price which the job was sold for will form a good basis of comparison.

We are not going to give a furnace price in this job, because it is desired that each furnace installer figure the job out and place his own costs on it all the way through. In sending the sketch in you do not necessarily need to put your name on it. Or if you have any objection to having the material you send in



Basement Plan for Brick Bungalow

published under your name, this will be omitted.

The object in doing this is to show how the Standard Code is applied to the job. The application of the Standard Code to the job will be published later after furnace men have had a chance to do their stuff on it.

WHOS WHO, WHERE

TACOMA, WASH.—Holladay and Edworth, 2340 Jefferson street, have the

sheet metal and roofing contract for library building in Shelton, Wash.

ST. PAUL, MINN.—A new factory building is being erected at 862 Seal street to be occupied by the Northwestern Re-Tinning Co. of Hershey and Hampden avenues.

RACINE, WIS.—The H. J. Orting Sheet Metal Co. has the ventilating contract for varnish factory of S. C. Johnson & Son.

MINNEAPOLIS, MINN.—The Rainville-Carlson Co., 412 West Lake street, has the roofing and sheet metal contract for garage of Barnes-Barry Chevrolet Co.

ST. PAUL, MINN.—The Gross Metal Products Co., 2575 West Como avenue, has hollow metal door contract for \$150,-

000 addition to building of Minnesota Mining & Manufacturing Co.

SAGINAW, MICH.—The Means Stamping Co., Rust avenue, has increased its capital stock from \$20,000 to \$40,000.

BERESFORD, S. D.—Bogue & Johnson has the furnace heating contract for Pleasant Valley School, near Yankton, S. D.

YANKTON, S. D.—Loft & Higbee, 321 Broadway, has the furnace heating contract for residence of E. P. Fitzgerald.

DAVENPORT, IA.—Jens Nielsen, 807 West Fourth street, has furnace heating contract for residence of Merle Van Epps.

DAVENPORT, IA.—The Davenport Metal Specialty Co., 1232 West Fifth street, has the furnace heating contract for residence of A. A. Lindbloom.

LOS ANGELES, CAL.—The Forde Cornice Works has the contract for hollow metal sash for the Soldiers' Home at Sawtelle, Cal.

KEOSAUQUA, IA.—J. W. Minnick has sold his sheet metal and heating business to S. B. Farwell.

OKLAHOMA CITY, OKLA.—B. & H. Passmore, 110 W. Reno street, have the roofing and sheet metal contract for \$175,000 hotel of Park-O-Tell Investment Co.

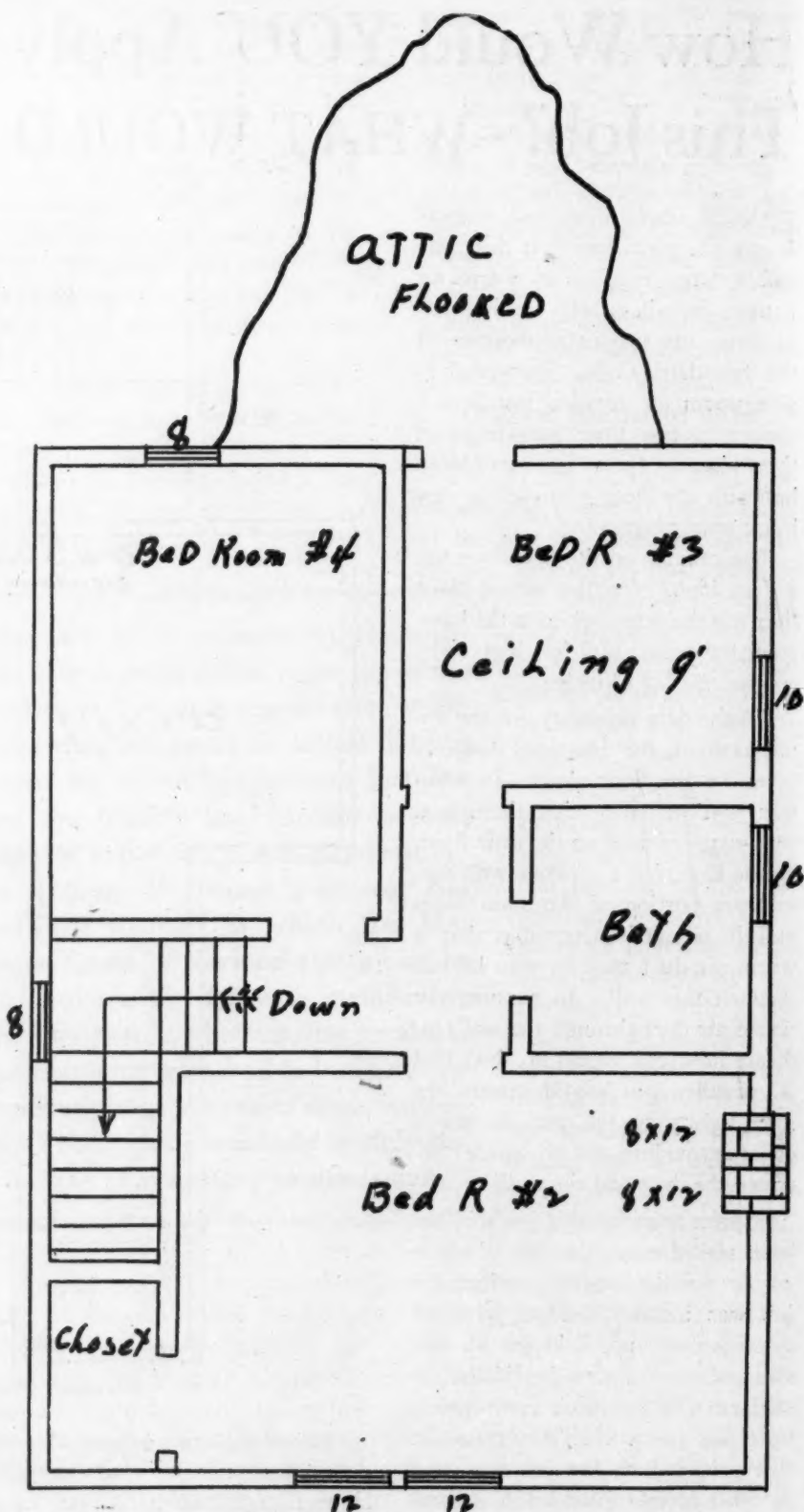
At Last—The National Sheet Metal Association's Big Book is Ready

Here is that big book which George Harms and the other members of the Trade Development Committee have been telling the trade about for such a long time.

Now that you can see it and know that it actually is a big book containing 768 9x12 in. pages, 494 pages of illustrations and 274 pages of text you can realize what a big job it was to get it ready for the printer.

It has twelve sections which completely cover every phase of the Sheet Metal Business.

It is called "Standard Practice in Sheet Metal Work" and its contents comprise the work of the most expert men in the trade.



Second Floor Plan for Problem (See Page 95)

It is an indisputable authority on standard methods of executing sheet metal work in every branch and is invaluable as a reliable reference in your dealings with architects, builders and building owners. All the proceeds from the sale of this book will go in the treasury of

the National Association to offset the great expense incurred in producing and printing this first complete treatise on Standard Practice. The price of the book is ten dollars and may be ordered through the book department of AMERICAN ARTISAN.

Here's Bid on Heating Job Published in Last Week's Issue

AMERICAN ARTISAN:

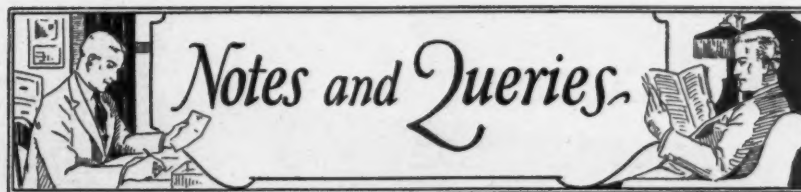
The writer cannot even guess what this job sold for, but here are my figures, using a 30-inch grate furnace; warm air, 822 square inches; return air, 829 square inches. Price, \$395.00. I am figuring 9-foot and 8½-foot ceilings.

I am also placing the furnace four feet west of location given on plan.

M. G.

Chicago, Illinois.

Let us have some more figures on this job. Refer to page 62 of the August 10th issue, AMERICAN ARTISAN.



Notes and Queries

Chimney Draft Gauges.

From C. Emrich Co., Columbus, O.

Kindly advise where we can buy draft gauges for testing chimneys?

Ans.—Lewis Ellison, 214 W. Kinzie Street, Chicago; Hays Corporation, Michigan City, Indiana.

Pressed Zinc Tile.

From H. Sabathne & Son, Altoona, Pa.

Who makes a pressed zinc tile for bathroom, kitchens, etc.? The one we refer to has a zinc base with baked enamel finish in various col-

ors and is applied on a special cement furnished by the manufacturer.

Ans.—Chromite Co., 228 North La Salle Street, Chicago.

Repair for Northwestern Furnace.

From George Cochlin, Blooming Prairie, Minnesota.

Who makes the Northwestern Furnace?

Ans.—Western Furnaces, Inc., Tacoma, Wash.

Address of Corning Glass Works.

From Young Hardware Company, Bellevue, Iowa.

Can you give us address of Corning Glass Works?

Ans.—Corning, N. Y.

Cast Iron Smoke Pipe.

From C. Emrich Co., Columbus, Ohio.

Who makes cast iron smoke pipe and fittings?

Ans.—Waterloo Register Co., Waterloo, Iowa, and Faultless Pipe Company, Brazil, Ind.

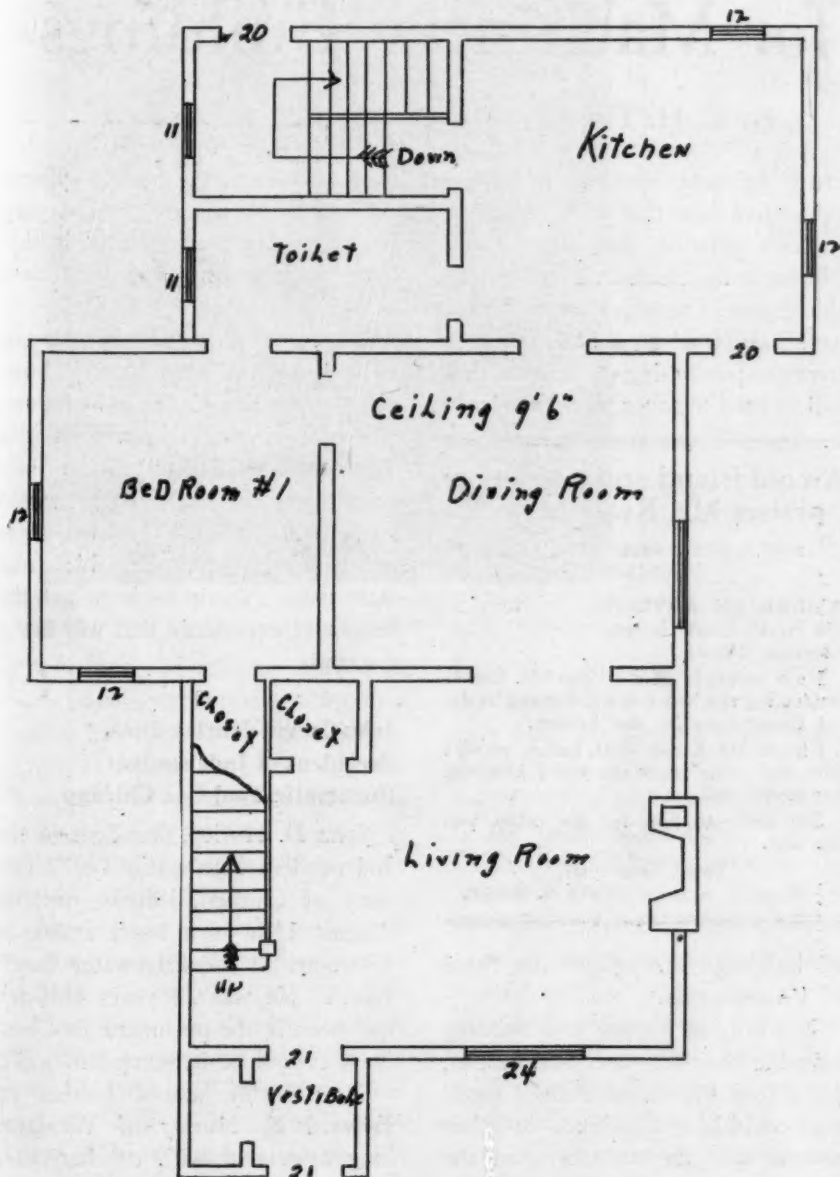
Louisville, Kentucky, Sheet Metal and Roofing Contractors to Hold Picnic August 25

Arrangements are being made by the picnic committee of the Louisville, Kentucky, Sheet Metal and Roofing Contractors' Association to have a big time August 25 at "Whelan Place," just outside the city.

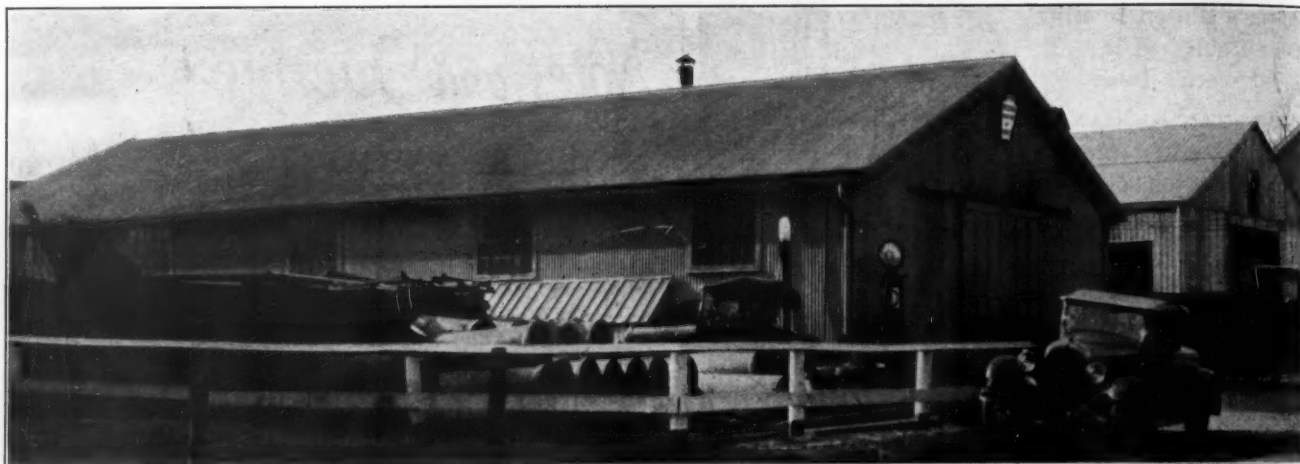
Charles W. Schott and John P. Heckel are in charge of the outing, which is to be an affair for the members and their families. Members of the sheet metal fraternity who will be in the vicinity are invited to attend, and are asked to notify the association at 667 South 31st Street, Louisville, of their intention to be present.

The committee states that this year's outing will be a "wow." Any game you want to play will be on the program and dancing will be a big feature of the day.

The committee says, "Just tell us you're coming and we'll see that you have a good time."



First Floor Plan for Problem (See Page 95)



Pennsylvania State Highway Department Believes in Protecting Its Motor Trucks and Other Road Building Machinery by Covering Its Garages with Sheet Metal. Those Shown Are Located North of Media, Pennsylvania

Pennsylvania Road Department Chooses Sheet Metal for Machinery Buildings

By C. H. Thomas

SCATTERED over Pennsylvania at strategic points are many buildings covered with sheet metal. These buildings are used to store much valuable road equipment, such as automobiles, trucks and other vehicles. Their value lies in their daily use and their preservation is due in a large measure to the means taken to protect them against damage by fire or other dangers that might destroy their usefulness.

In this case we see two large buildings that are entirely covered with sheet metal, and these are but two of many hundreds that use sheet metal for their covering and protection.

There is reason to believe that the State of Pennsylvania is sold on the value of good sheet metal in their operating departments, where danger from fire is always prevalent and where absolute protection, insofar as is humanly possible can be secured.

To protect machinery against storms, fires, winds the Keystone state spends thousands of dollars each year.

Naturally they want to practice economy as far as possible, and in their laboratories they have given

many different kinds of materials exhaustive tests that go a long ways towards proving that sheet metal will resist the elements to a remarkable degree. Therefore their findings have been used as a basis when it comes to purchasing sheet metal that will be used to cover many hundreds

An old friend and co-worker praises Mr. Kealer's work

ROBT. J. STEGER SHEET METAL WORKS
Avilla, Ind.

AMERICAN ARTISAN,
139 North Clark Street,
Chicago, Illinois

I am certainly glad to see Mr. Kealer conducting the Sheet Metal Pattern Drafting Department for the Artisan.

I know Mr. Kealer well, having worked with him some years ago and I know he knows his stuff.

Say hello to him for me when you see him.

Yours very truly,
Robt. J. Steger.

of buildings throughout the State of Pennsylvania.

Not only in roofing and building covering have they used sheet metal, but a long list of other sheet metal uses could be enumerated. It is but natural that they would want the best, that material that will withstand the longest efforts of the ele-

ments to subdue it. Here they have chosen wisely and purchased only well known advertised brands that long experience and use have proven successful.

The State of Pennsylvania is one of our greatest states in the Union and they do not do things by halves. Therefore it might be a good idea for others to follow suit in their daily search for materials that would serve them efficiently and use some of the sheet metal that this great state uses. To do so is to get the benefit of experience that will never go amiss.

**John David Hurley Dies,
President of Independent
Pneumatic Tool Co., Chicago**

John D. Hurley, president of the Independent Pneumatic Tool Company of Chicago, Illinois, died on August 15th of a heart attack in his rooms at the Edgewater Beach Hotel. He was 74 years old, and had been in the pneumatic tool business ever since he started to work.

Mr. Hurley was a brother of Edward N. Hurley of Wheaton, long associated with the hardware and manufacturing interests in the Middle West.

Here's Proof The METAL CORNICE



IS Coming Back

The CORNICE BOOK published by the Trade Development Committee of the National Association of Sheet Metal Contractors, has done much to increase the use of Metal Cornices.

Here is a Concrete Example of the Type
of Profitable Cornice Work the
Progressive Sheet Metal
Contractor Can
Secure



By George Duerr

ON page 55 of our July 13th issue there appeared an item calling attention to the fact that the Trade Development Book of the National Association of Sheet Metal Contractors, "Standard Practice in Sheet Metal Work," would be ready about August 15th.

Announcement of the completion of the book is made on another page of this issue.

This book represents one of the most momentous tasks in behalf of industrial betterment that any association has ever undertaken. It represents about ten years' labor of some 25 or 30 men and the indomitable persistence of

one man, whose desire to render a service to the industry of which he is a part has never for an instant faltered and who has gone to considerable financial sacrifice in order to see the thing through.

The first evidence, however, that a book of this kind was actually under way was back in 1925 when the Cornice and Educational Publicity Committee of the Association named above issued as a forerunner to the main book the Cornice Section, so that contractors would have something concrete to hand to architects, telling them at the same time that when the main book was published it would contain not only a

more detailed work on the best methods for erecting cornices, but on every line of sheet metal.

Immediately after the appearance of this Cornice Section it was delivered into the hands of architects, in many instances being personally presented to the architect by the sheet metal contractor in the town or city. This Cornice Section was received with a great deal of approval on the part of the architects and gave the committee the encouragement they needed to proceed with the much bigger task of preparing the complete book.

It is needless to say that this Cornice Section did considerable to re-

New HOSPITAL Copper



Views of St. Elizabeth's
Danville, Illinois, Sheet Metal
Cornice Made and Erected by
Dobbins, Sheet Metal Works
Danville, Illinois

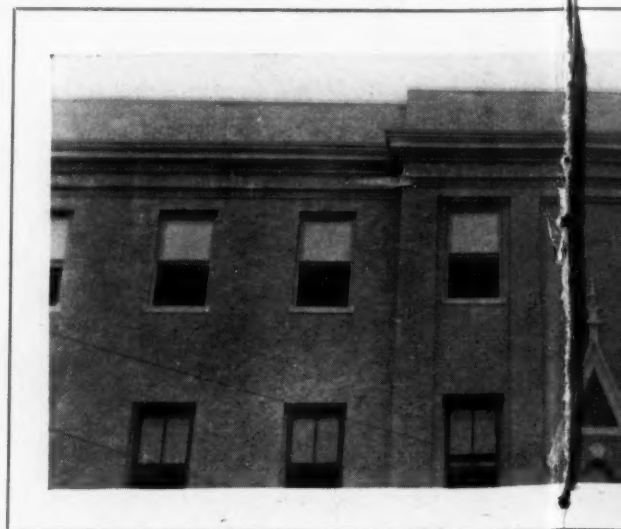
live interest in the metal cornice, particularly as it so happened that about that time several very serious accidents, in one or two instances causing death to pedestrians, occurred from stone cornices dropping from the tops of buildings.

Now we find the metal cornice making its appearance on many of the larger office buildings, apartment buildings and hospitals, where it is desired to relieve the plain construction to which these buildings have been subjected in late years. Architects are already beginning to see that through the metal cornice they can make their structures more graceful than has been their wont in the immediate past without endangering the lives of the pedestrians on the sidewalks adjacent to these structures. With the completion of the Trade Development Book this use of sheet metal where other materials were formerly employed is bound to increase.

W. G. Dobbins, one of the progressive sheet metal contractors of Danville, Illinois, has just recently completed the erection of a copper cornice on St. Elizabeth's Hospital in Danville. This hospital is one of the most modern buildings of its kind to be erected, covering as it does almost a solid block of area.

Some idea of the immensity of this cornice job and the amount of copper sheeting its completion required can be gained from the accompanying illustrations, which show the front portion of the building. The circumference of this cornice is approximately seven feet, giving the building an attractive appearance which it would not have without the cornice. Thus it is shown how the architects have taken advantage of the metal cornice to secure added beauty for the structure at very little additional cost, when the total cost of the building is considered.

Now, it has been the aim of the men who are responsible for the production of the Trade Development Book to have the book do for the entire gamut of sheet metal phases of the sheet metal industry what this partial cornice section has apparently done for the cornice phase of the sheet metal industry. And the most beautiful part of it is



TAL chooses a Cornice

Elizabeth's Hospital,
Showing Copper
and Erected by W. G.
Metal Contractor of
Illinois



that there is no apparent reason why they should not succeed in their objective.

With this book in his office the architect can intelligently specify sheet metal work for it gives him the necessary working details which up until now were unobtainable.

It also gives him positive assur-

ance that this data is authoritative and in accordance with present day methods of scientific and high quality building construction.

As this book will find its way into the hands of architects throughout the country every progressive sheet metal contractor should thoroughly familiarize himself with the contents so as to be in a position to obtain his share of the increased call for sheet metal construction work which is bound to come.

Many local associations have already arranged for sufficient copies to supply the architects operating in the territories served by the members.

W. G. Dobbins has been in the sheet metal contracting business in Danville since 1899, so O. C. Dettman, foreman of the shop told me during a recent visit to this progressive shop. The firm began business under the name of Dobbins & Ware and continued under

that name for twenty years or more. He has a very nice, well appointed, well lighted shop just around the corner from the best hotel in Danville, and if you were to step into any building and loan association in Danville and inquire who the most progressive sheet metal contractors of the city are, Mr. Dobbins' name would in all probability be the first one given to you. Mr. Dobbins' foreman, Mr. Dettman, has been with the firm twenty years himself and during that time has seen great changes come over the sheet metal industry. The copper cornice for the St. Elizabeth's Hospital was made entirely in the Dobbins' shop and erected under the supervision of Mr. Dettman.

W. G. Dobbins himself was enjoying a vacation in Florida during my visit to the shop. That is, I think Mr. Dettman said Florida, or perhaps he said Cuba or Bermuda. Anyway he hails the return of the metal cornice with pleasure.

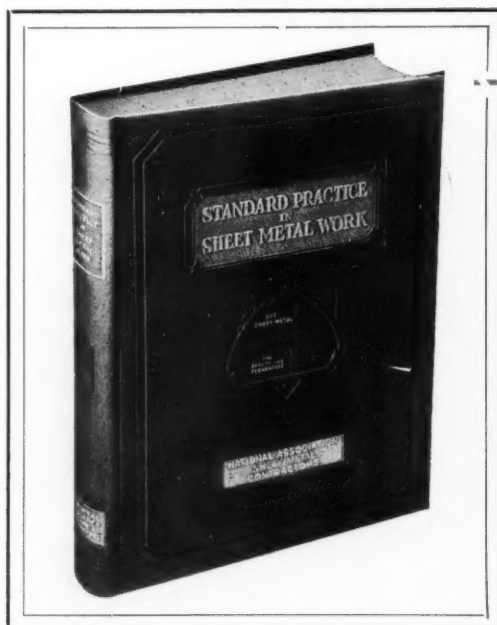


The BIG book

is Here!

Published
by the
NATIONAL
ASSOCIATION
of
SHEET METAL
CONTRACTORS

Prepared
by the
TRADE DEVELOPMENT
COMMITTEE



AMERICAN ARTISAN is cooperating with the National Association to secure the widest possible distribution of this book. The handling of orders is being done without cost to the association.

STANDARD PRACTICE in SHEET METAL WORK

CONTENTS

SECTION I
Roofing, Gutters, Conductors, Flashings and Corrugated Iron Work—115 full page illustrations—53 pages text—Total 168 pages.

SECTION II
Skylights and Ventilators—27 full page illustrations—13 pages text—Total 40 pages.

SECTION III
Metal Cornices—96 full page illustrations—29 pages text—Total 125 pages.

SECTION IV
Metal Ceilings—7 full page illustrations—4 pages of text—Total 11 pages.

SECTION V
Warm-Air Furnaces—45 full page illustrations—21 pages text—Total 66 pages. Sixth Edition of the Standard Code is included in this section.

SECTION VI
Heating and Ventilating Systems—36 full page illustrations—30 pages text—total 66 pages.

THE first and only book that is an authority on Standard Practice and to which you and the architect can refer for reliable data. Prepared by the ablest men in the industry. Contains 12 sections covering every branch of the trade. Printed on good paper—durably bound, attractively stamped.

When you get your copy you will see that it will pay you to present a copy to every architect with whom you do business. The most remarkable book ever published for the benefit of the Sheet Metal Business.

768 pages—9x12 in., 494 pages of illustrations—274 pages of text.
PRICE \$10.00 postpaid.

CONTENTS

SECTION VII
Blow Pipe and Exhaust Systems—45 full page illustrations—40 pages text—Total 85 pages.

SECTION VIII
Fire and Kalamein Doors—42 full page illustrations—34 pages text—Total 76 pages. Recommendations of the National Board of Fire Underwriters (1927 Edition) is included.

SECTION IX
Hollow Metal Doors and Trim—11 full page illustrations—6 pages text—Total 17 pages.

SECTION X
Hollow Metal Windows—64 full page illustrations—18 pages text—Total 82 pages.

SECTION XI
Restaurant, Kitchen and Hotel Equipment—6 full page illustrations—7 pages text—Total 13 pages.

SECTION XII
Protective Coatings and Paints—4 pages of text. Also 3 pages of gages, sizes and weights of sheets and comparison of gages used for various sheet metals.

AMERICAN ARTISAN
139 North Clark Street, Chicago, Illinois

ENCLOSED find \$10 (ten dollars) for one copy of STANDARD PRACTICE IN SHEET METAL WORK.

Name

Street address

Town State

Thousands of copies
were ordered prior to
publication
IN ORDER THAT YOU
MAY OBTAIN YOUR
COPY SOON
—ORDER TODAY

How Would You Lay Out Pattern for This Elbow?

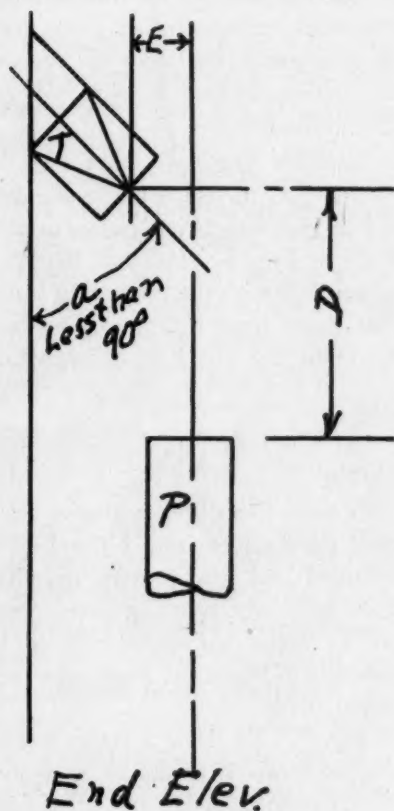
Here is a chance for students of sheet metal pattern drafting to help out a fellow subscriber. The reader who needs the assistance writes us as follows: "We would appreciate your help on the accompanying drawing of a three-piece elbow having the same circumference at both ends, but with one end round measuring 13 inches in diameter and one end elliptical brought down to a diameter of 10 inches between the straight sides."

Can You Solve This Problem for Mr. Oldenburg

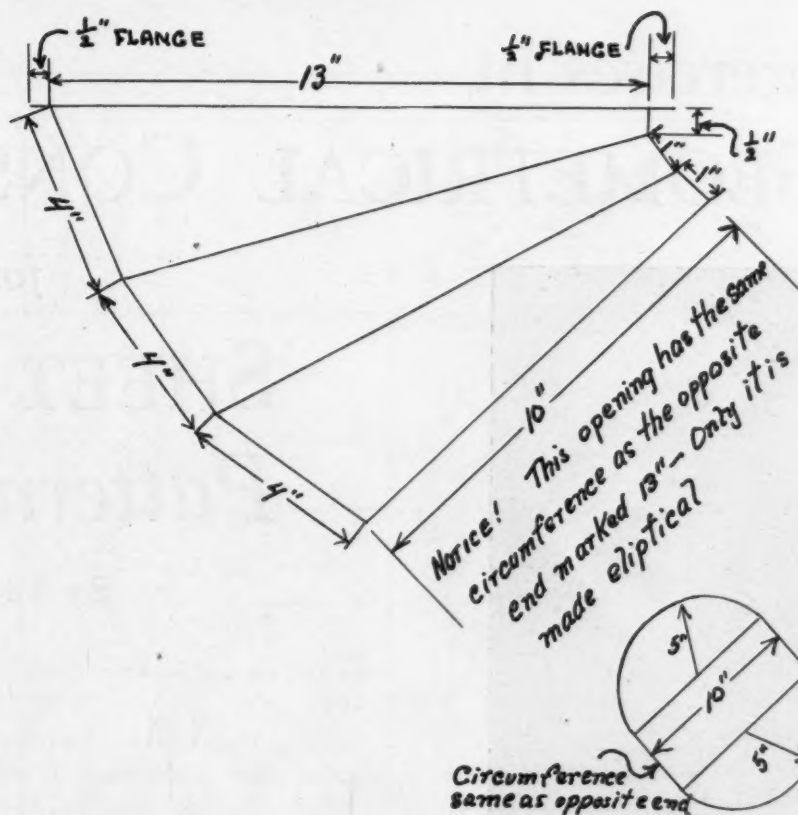
H. A. Oldenburg, Brockton, New York, would like to have some bright sheet metal man solve this problem for him, the details of which are as follows:

Problem:

Given—Pipe "P" and transformation "T" of some diameters. Dis-

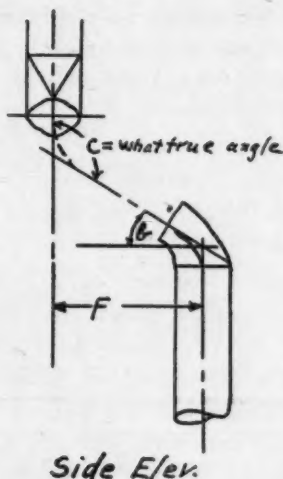
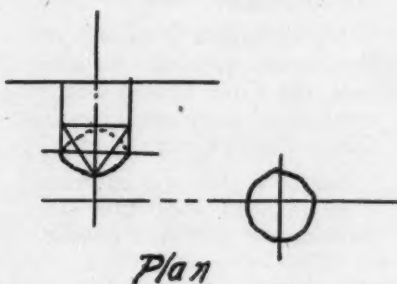


tances "D"- "E" and "F." Angle "a" less than 90° . Angle "b" less than 90° . Find true angle "c" for elbow connection to "T." Solve



graphically and by calculation if possible.

Can angle "b" and "c" be made such that the same degree elbows can be used to get the shortest possible connection between "P" and "T"?



How Would You Have Liked to Have Been This Sheet Metal Contractor?

At the recent convention of the Ohio Sheet Metal Contractors' Association considerable discussion was entered into regarding the possibility of getting a reduction in the workmen's compensation insurance rate that is charged on the roofing classification.

In this connection one of the peculiar quirks of the law was explained to have worked to the disadvantage of the contractor in a way that he least expected.

In this case a workman had fallen off a scaffolding and was killed. The wife entered suit against the contractor in lieu of taking the compensation that was offered her by the insurance company and won a judgment against the contractor for \$25,000. The plea was based upon the proposition that the contractor had neglected to use proper safety appliances.

It is not sufficient that the safety appliances are there. The workers must be made to use them at all times.

Taking \$25,000 out of any sheet metal business would put a serious crimp in that business.

Exercises in GEOMETRICAL CONSTRUCTION

for the SHEET METAL Pattern Drafter

By Adolf Kealer



Adolf Kealer
Associate Editor
in Pattern Drafting

OUR plate No. 5 shows a few exercises in geometrical construction. The student will lay off six squares on a sheet of drawing paper to the dimensions shown and proceed to draw the problems shown on this plate.

Fig. 1. Definitions of the parts of a circle.

A circle is a flat surface, bounded by a curved line called its circumference, every point of which is equally distant from a point within it called the center. In Fig. 1 (C) is the center. A diameter is a straight line through the center of a circle, dividing it into two halves as line A to B. A radius is a straight line from the center of the circle to the circumference of the same, as line C to D. A segment is a part of a circle cut off by a straight line as E-F-G. A chord is a straight line shorter than the diameter, both ends of which touch the circumference, as line E-G. An arc is any part of the circumference as A-D. A section is that part of a circle which is enclosed by two-

radii and the arc between them, as C-H-I.

Angles. The radii A-C and C-D from an acute angle, which is less than 90° . The radii A-C and C-H form a right angle which is 90° . The radii H-C and C-I form an obtuse angle, which is more than 90° . Note: The student should

THIS is the Fourth Lesson in the course of Sheet Metal Pattern Drafting by Adolf Kealer.

Next week's issue of American Artisan will contain the Fifth Lesson which consists of more exercises in Geometrical Construction.

See to it that the apprentices in your shop take advantage of this free course.

mark off in Fig. 1 the number of degrees on angle (A-C-D) (A-C-H) and (A-C-I) and thereby learn to read degrees.

Fig. 2 shows how to bisect (meaning to divide into 2) a line of any length or an arc of any radius.

Draw a segment of a circle to any radius as shown in Fig. 2. Mark the two points as A and B. Set the compasses to a distance greater than half the distance from A to B and with points A and B as centers describe two little arcs

crossing each other at 1 and 2. Draw a line from point 1 to point 2, which will bisect the arc A-C-B at C and the line A-D-B at D.

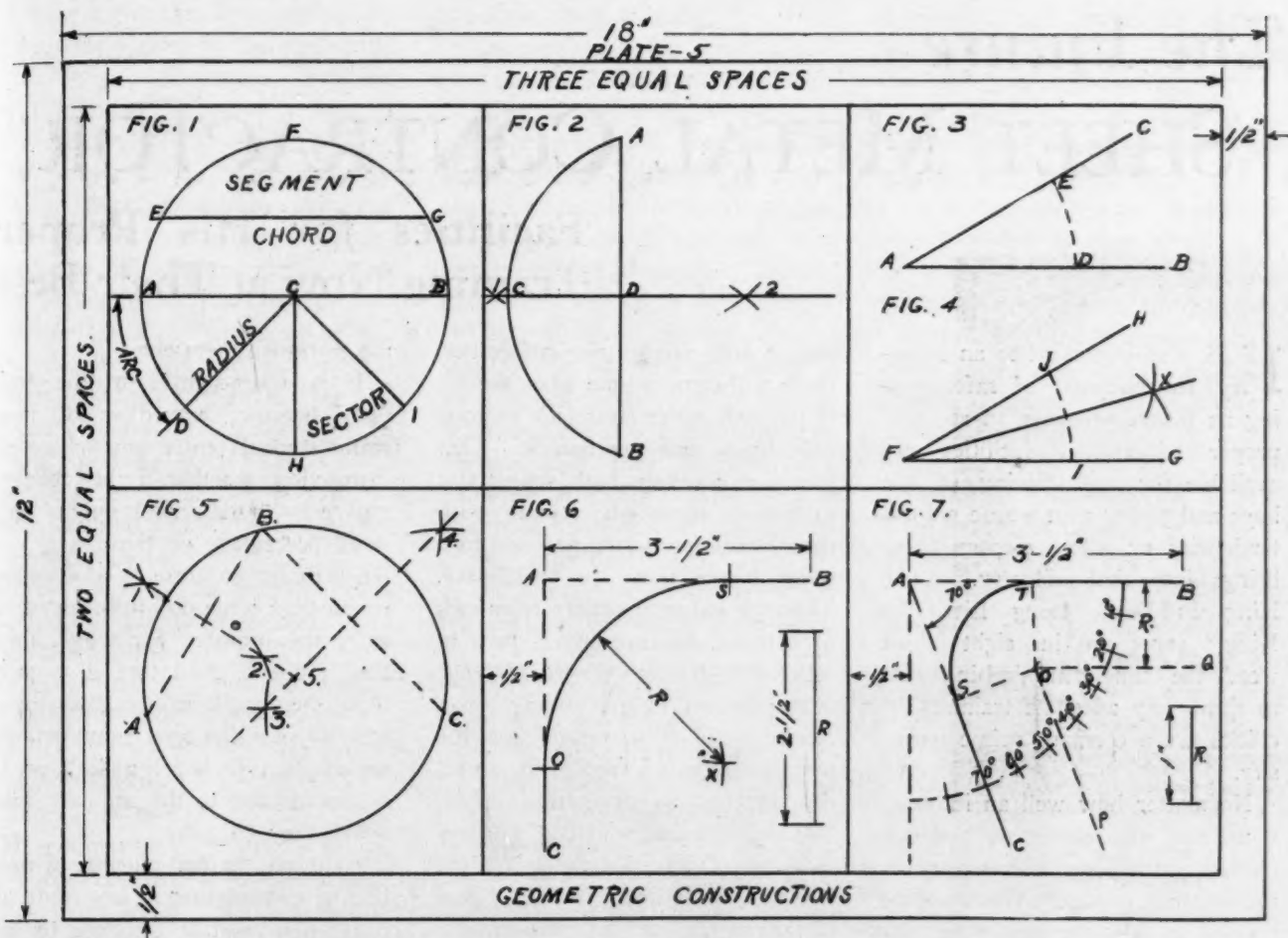
Fig. 3 and 4 show how to transfer and bisect a given angle. From the line A-B, lay off line A-C, to any desirable angle as shown in Fig. 3.

For the purpose of transferring this angle to some other place, use A as a center and draw an arc of any radius, cutting the line A-B at D and the line A-C at E.

Transfer line A-B from Fig. 3, to line F-G in Fig. 4 and make arc I-J in Fig. 4 the same radius as arc E-D in Fig. 3. Pick off the distance D-E with the compasses from Fig. 3 and place it from I-J in Fig. 4. Draw the line F-H through the point J to complete the transferred angle.

To bisect the angle use method similar as shown in Fig. 2. Set the compasses to a distance greater than half the distance from I-J and with points I and J as centers, describe two little arcs crossing each other at X. Draw a line from X to F which will bisect the angle into two equal parts.

Fig. 5. To draw a circle touching three given points as A-B and C. Connect A-B and B-C by straight lines. Bisect A-B and B-C by means of intersecting arcs as shown by 1-2 and 3-4. Draw lines through these intersecting arcs as shown, connecting 1 to 2 and 3 to



4, which will locate point 5, the center of the required circle, with point 5 as a center and 5-A as a radius describe the circle.

Fig. 6. To draw an arc of a given radius, tangent to two lines meeting at right angles.

Let A-B and A-C be the given lines at right angles to each other and let (R) be the given radius.

Set the compasses to the distance of (R) and using A as a center, mark off two short arcs S and O on lines A-B and A-C. Then using S and O as centers and the same radius as before, draw short arcs intersecting at (X). With (X) as a center and the same radius again draw the arc O to S. Points O and S are the points of tangency of the arc and the lines. (Definition of tangency.) The point of tangency is where the line touches the arc at a point without cutting it. A line drawn at right angles with the tangent line and passing through the center of a circle will always locate the point of tangency, or in other words the exact point where the

line touches the arc or circle.

Fig. 7. To draw an arc of a given radius, tangent to two lines, forming an acute angle of 70° .

Let A-B and A-C be the given lines and R the given radius. At a distance equal to R, draw parallel lines to A-B and A-C meeting at (O). Mark them O-P and O-Q. From (O) draw lines O-T and O-S at right angles with O-P and O-Q. With (O) as a center and O-S as a radius, draw the arc S-T. Points S and T are the points of tangency, that is where line A-B and A-C touch the arc.

W. J. Beck and Dr. Anson Hayes of Armco Advanced to New Posts

W. J. Beck, for nineteen years Director of Research of The American Rolling Mill Company, has been appointed Assistant to Mr. Charles R. Hook, General Manager.

Mr. Beck will have direct charge of the development in electrical steel sheets for magnetic purposes, a field in which this company was a

pioneer. He is widely known in this branch of the iron and steel industry, having joined the company in 1903.

Mr. Beck is a member of various technical societies and has kept in close touch with the scientific development of the metallurgical and magnetic problems.

Dr. Anson Hayes has been appointed Director of Research of The American Rolling Mill Company, of Middletown, Ohio. He will be in charge of all metallurgical research problems for this organization, which was one of the first to conduct such a department in connection with the manufacture of iron and steel sheets.

For the past year and a half, Dr. Hayes has been Chief of the Chemical Division of the Research Division. Before joining The American Rolling Mill Company, Dr. Hayes held the chair of Physical Chemistry at Iowa State College for twelve years and headed that division of the large Chemical Department of that institution.

The Future

SHEET METAL CONTRACTOR

Facilities for His Proper
Training Now at Their Best

IT IS very important to an industry, for purposes of safeguarding its future progress, to see that proper educational facilities are available for the training of the boys and young men whose natural tendencies or whom circumstances brings into that industry. "The King Is Dead, Long Live the King," sums up in eight short words the thought in mind in trying to show why adequate training facilities are a constant prime necessity.

No matter how well an industry is manned with executives and mechanics during any given period, unless other younger men are being trained to take the places left behind by these executives and mechanics as they go on up to higher

places and finally out altogether, there will come a time when the industry will suffer from lack of good executives and mechanics. That means excessively high wages and salaries to those who remain, with the consequent raising of costs to a point where they are prohibitive. Then the industry suffers from lack of demand, because buyers turn to other industries to fill their wants.

A common failing among union officials, etc., is to reason that the more men that are trained for an industry, the less opportunity there will be for workers in that industry to enforce their demands. This is indeed a shortsighted trend of reasoning to pursue, and works to the detriment of the industry in which it is applied, and consequently to

the workmen themselves.

It is short-sighted in the first place because, regardless of how many students enter any school of instruction, whether it be college, university, trade school, only a very small percentage of those who enter actually go through the entire course and come out full-fledged to enter the industry for which they have studied. And that is a good thing, because it insures that those who do pass the final examinations are of the type which make a creditable addition to the industry into which they go.

After all, the real purpose of preliminary instruction in any trade or profession must be designed to determine whether the applicant is fit by natural aptitude and otherwise



Window Display of George Bushman, Sheet Metal Contractor, Aurora, Illinois, Showing Mooseheart Students' Work

to enter a given trade or profession. The more applicants that apply, the stiffer the requirements for the completion of the course become. It is a survival of the fittest.

It works for the good of all industry and all applicants, because it insures capable workmen and executives to the industry and it helps the young man to find the profession or trade for which he is best suited. It brings out the natural leaning that the student has for any given industry and helps him to avoid spending much time in some industry for which he is not especially fitted and for which he has no special liking.

The United States has not always been as fortunate as it is today in trade school facilities;—particularly is this true in the sheet metal industry. Before the war this country depended almost exclusively upon European countries for its supply of sheet metal men. There was no urge to bother with instructing men in this country when a good supply

of them could always be had in abundance from the other side. The immigration laws limiting the number of people coming to this country from the other side made a great difference, however, and taught employers in this country the value of having facilities for training their own young men.

This article is not intended to be a catalog of training schools for the sheet metal industry, but is merely calling attention to the fact that such schools are in existence and doing a very creditable work in the way of teaching the youth who present themselves the rudiments of the industry, so the supply of adequately trained men will be maintained in sufficient quantity for the needs of

the sheet metal industry.

The accompanying window display is that of the sheet metal shop of George Bushman, sheet metal contractor, at 57 South La Salle street, Aurora, Illinois. The articles displayed in the window were all made by students in the sheet metal school at Mooseheart, Illinois, under the direction of J. A. Brandt.

This window contains only a small portion of the total amount of work which the boys do at Mooseheart, but there is enough there to indicate that they do receive a thorough training. The second photo shown is that of the interior of Mr. Bushman's shop.

The number of good schools for the training of future sheet metal

and I maintain that a roof needs a slope of at least one inch to each ten feet, preferably more.

"I told him I would write to AMERICAN ARTISAN to settle the point."

It is the opinion of AMERICAN ARTISAN that a slope of one inch to each ten feet is the minimum pitch for tin and built-up roofs. Adolf Kealer and a number of the most progressive sheet metal and roofing contractors in this territory substantiate this opinion.

Charles M. Easterly, New Vice President Canton Rolling Mills Corp.

Charles M. Easterly, formerly vice-president of the Inland Steel Company, has become first vice-president in charge of sales of the Canton Rolling Mills Corporation, Canton, Ohio. After leaving the Inland Steel Company, where he had served 18 years, Mr. Easterly removed from Milwaukee to Madison, Wisconsin, where he was president of the Capital City Culvert Company. Mr. Easterly has been identified with the steel business for many years. Prior to his connection with the Inland Steel Company, he was with the Berger Manufacturing Company and Stark Rolling Mills Company, since absorbed by the Central Alloy Steel Corporation.

Business promises to be brisk this fall for the progressive warm air heating contractor. The wise fellow is out canvassing his territory now—he's getting in basements and checking up on what folks need so when the first cold snap comes he can phone them and be prepared to clinch the sales and repair jobs he fails to get right now.



Interior View of the George Bushman Salesroom. Sheet Metal Shop Is in Basement

contractors constitutes no small part of the total educational facilities of the country today, and the teaching personnel of these schools is of a high order.

Yes, Mr. Willey, You Are Right, Tin or Built Up Roof Needs to Be Built with Slope

Mr. J. L. Willey, sheet metal contractor of Freeport, Illinois, wrote us, as follows, under date of August 5th.

"A superintendent of a construction company of dwellings and other buildings in this city and myself have disagreed concerning the construction of roofs.

"He claims that it is better for tin and built-up roofs to be level,

RANDOM NOTES AND SKETCHES

Happy Al Bershback, one of the well-known and well-liked pillars of the Michigan Sheet Metal and Roofing Contractors' Association, paid us a visit last Monday morning. Al said his wife and he had taken in the enjoyable Grand Rapids outing, and being so close to Chicago his wife decided they might just as well jump over to Chicago to do a little shopping.

Al told us all about the Michigan Association's annual outing which was held recently at the Idle Hour Club, St. Clair Flats.

Having attended these enjoyable annual outings for many years past we were more sorry than ever that our working schedule made it impossible for us to attend. It was mighty fine of Al to call and tell us that the old crowd had such a fine time.

* * *

More Advice

First Stenog: "I wouldn't work for a man who asked me to lunch every day."

Second Ditto: "I should hope not. If he can't take you to dinner, ditch him."

* * *

Teacher: "Now, Jimmy, what are you doing, learning something?"

Jimmy: "No, ma'am. I was just listenin' to you."

* * *

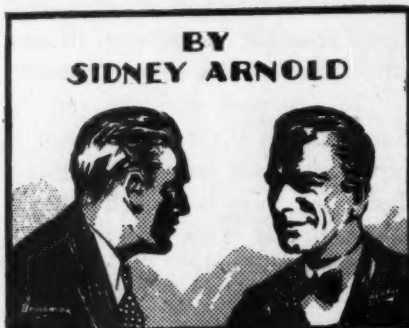
Alonzo: "Why do girls kiss each other, and men do not?"

Gertrude: "Because girls have nothing better to kiss and men have."

* * *

Hurry Call

Meek voice over the telephone: "Doctor, this is Mr. Henpeck. My wife has just dislocated her jaw. If you're out this way next week or the week after, you might drop in and see her."



Harold Mueller and Harry Christman, who both have helped to make Milwaukee famous, were discussing politics and the popular candidate.

"Well," said Mueller, "I like him well enough personally, but his platform is all wrong."

"Platform," almost shouted Christman. "Platform! Say, don't you know yet that a political platform is just like the platform on one of our street cars; it isn't meant to stand on; it is just meant to get in on."

* * *

Captain (frenziedly): "All hands on deck, the ship's leaking."

Sleepy Voice (from the hold): "Aw, put a pan under it and come to bed."

* * *

Art Robinson of the A. H. Robinson Co., Massillon, Ohio, who was in to see us Friday morning, was telling us how hard it was for him to keep up with the repartee of his daughter Dorothy.

"However, said Art, I thought fast the other day when she told me that her young man friend had finally graduated from college and wanted to have a long, serious talk with me.

No, I said, I'm sorry, Dot, but



it won't do the young man any good. My mind is firmly made up. I've made all the bad investments I can afford this year.

* * *

Sizzling

The colored preacher was describing the "bad place" to a congregation of awed listeners.

"Friends," he said, "you've seen molten iron running out of a furnace, white hot, sizzling and hissing. Well—"

The preacher pointed a long, lean finger at the frightened crowd.

"Well," he continued, "they use that stuff for ice cream in the place I been talking about."

* * *

Plenty on Hand

Employer: "I'm looking for a man with new ideas."

Applicant: "Believe me, I've got them. I was just married last week."

* * *

Fatal Revelation

The prisoner was asked why he beat the victim.

"Well, Judge, he called me a rhinoceros."

"Umph! Rhinoceros, eh? When did this happen?"

"Jess about three years ago, Judge."

"Three years ago! Why did you wait until today to get even, then?"

"Well, the facts am dat I never seed no rhinoceros until this mawnin'."

* * *

Teacher—"Robert, here is an example in subtraction. Seven boys went down to the creek to bathe, but two of them had been told not to go in the water. Now, can you inform me how many went in?"

Robert—"Yes'm; seven."

Chicago Warehouse Metal and Furnace Supply Prices

AMERICAN ARTISAN is the only publication containing Western Metal, Furnace Supply and Hardware prices corrected weekly

Note: These Prices Are Chicago Warehouse Prices of Metal, to Which Must Be Added Freight to Cities Outside of Chicago.

METALS

PIG IRON

Chicago Fdy.,	
No. 2	\$20 00
Southern Fdy. No. 2	\$1 51
Lake Superior Charcoal	\$7 04
Malleable	\$9 00

FIRST QUALITY BRIGHT CHARCOAL TIN PLATES

IC	20x28 112 sheets	\$22 50
IX	20x28	\$25 50
XXX	20x28 56 sheets	14 50
XXXX	20x28	15 50
XXXXX	20x28	17 00

TERNE PLATES

IC	20x28, 40-lb. 112 sheets	\$26 70
IX	20x28, 40-lb. 112 sheets	\$29 70
IC	20x28, 25-lb. 112 sheets	\$23 20
IX	20x28, 25-lb. 112 sheets	\$25 20
IC	20x28, 20-lb. 112 sheets	\$20 20
IV	20x28, 20-lb. 112 sheets	\$23 00

"ARMCO" INGOT IRON PLATES

No. 8 ga.—100 lbs.	\$4 15
3/16 in.—100 lbs.	4 05
1/4 in.—100 lbs.	3 55

COKE PLATES

Cokes, 80 lbs., base, 20x28	\$12 00
Cokes, 90 lbs., base, 20x28	12 20
Cokes, 100 lbs., base, 20x28	12 40
Cokes, 107 lbs., base, IC	
20x28	12 75
Cokes, 135 lbs., base, IX	
20x28	14 75
Cokes, 155 lbs., base, 2X,	
56 sheets	8 50
Cokes, 175 lbs., base, 2X,	
56 sheets	9 35
Cokes, 195 lbs., base, 4X,	
56 sheets	10 25

BLUE ANNEALED SHEETS

Base 10 ga.—per 100 lbs.	\$3 25
"Armco" 10 ga.—per 100 lbs.	4 15

ONE PASS COLD ROLLED BLACK

No. 18-20	per 100 lbs.	\$3 35
No. 22	per 100 lbs.	4 00
No. 24	per 100 lbs.	4 05
No. 26	per 100 lbs.	4 15
No. 27	per 100 lbs.	4 20
No. 28	per 100 lbs.	4 30
No. 29	per 100 lbs.	4 45
No. 30	per 100 lbs.	4 55

"ARMCO" GALVANIZED

"Armco" 24	per 100 lbs.	\$6 15
------------	--------------	--------

GALVANIZED

No. 16	per 100 lbs.	\$4 40
No. 18	per 100 lbs.	4 55
No. 20	per 100 lbs.	4 70
No. 22	per 100 lbs.	4 75
No. 24	per 100 lbs.	4 90
No. 26	per 100 lbs.	5 15
No. 27	per 100 lbs.	5 25
No. 28	per 100 lbs.	5 40
No. 30	per 100 lbs.	5 30

BAR SOLDER

Warranted 50-50	per 100 lbs.	\$21 25
45-52	per 100 lbs.	30 51
45-55	per 100 lbs.	29 25
Plumbers'	per 100 lbs.	27 25

ZINC

In Slabs	\$ 7 35
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SHEET ZINC

Cask Lots (400 lbs.)	\$11 75
Sheet Lots	12 75

BRASS

Sheets, Chicago base	24 1/2 c
Mill base	23 1/2 c
Tubing, brazed, Chicago base	31 1/2 c
Mill base	30 1/2 c
Tubing, seamless, Chicago base	29 1/2 c
Mill base	28 1/2 c
Wire, Chicago base	24 1/2 c
Mill base	23 1/2 c
Rods, Chicago base	22 1/2 c
Mill base	21 1/2 c

COPPER

Sheets, Chicago base	27 1/2 c
Mill base	26 1/2 c
Tubing, seamless, Chicago base	30 1/2 c
Mill base	29 1/2 c
Wire, plain rd., 3 B. & S. Ga. and heavier	25 1/2 c

LEAD

American Pig	\$7 62
Bar	\$ 60

TIN

Bar Tin	per 100 lbs. \$53 00
Pig Tin	per 100 lbs. 52 00

HARDWARE, SHEET METAL SUPPLIES, WARM AIR FURNACE FITTINGS AND ACCESSORIES.

ASBESTOS

Paper up to 1/16	60 per lb.
Roll board	7 1/2 c per lb.
Mill board 3/32 to 1/2	7 1/2 c per lb.
Corrugated Paper (250 sq. ft. to roll)	\$6 00 per roll

BRUSHES

Furnace Pipe Cleaning	
Bristle with handle each	\$0 75
Fine Cleaning	
Steel only, each	1 25

CEMENT, FURNACE

American Seal, 5-lb. cans, net	\$ 45
American Seal, 10-lb. cans, net	35
American Seal, 25-lb. cans, net	2 25
Pecora	per 100 lbs. 7 50

CHIMNEY TOPS

Adams' Revolving	Wt. Doz.	Price Doz.
4 in.	21 lbs.	\$11 00
6 in.	24 lbs.	11 50
8 in.	30 lbs.	13 50
10 in.	33 lbs.	15 00
12 in.	41 lbs.	16 50
14 in.	55 lbs.	18 00
16 in.	66 lbs.	22 00
18 in.	110 lbs.	26 00

CLINKER TONGS

Each	\$1 50
------	--------

CLIPS

Damper	
No-Rivet Steel, with tail	
pieces, per gross	\$9 50
Rivet Steel, with tail	
pieces, per gross	7 50
Tail pieces, per gross	3 40

COPPER—Soldering

Pointed Roofing	
3 lb. and heavier	per lb. 40c
2 1/2 lb.	per lb. 45c
2 lb.	per lb. 48c
1 1/2 lb.	per lb. 55c
1 lb.	per lb. 60c

CORNICE BRACKETS

Chicago Steel Bending	
No. 1 to 6B	Net

OUT-OFFS

Gal. plain, round or cor. rd.	
26 gauge	30%
28 gauge	35%

DAMPERS

Yankee Hot Air	
7 inch, doz.	\$1 60
8 inch, doz.	2 20
9 inch, doz.	2 40
10 inch, doz.	2 80
12 inch, doz.	3 50
14 inch, doz.	5 00

ADAMS No. 1 CHECK

Check and Collar Complete	
8 inch, each	1 00
9 inch, each	2 25
End Check Only	
8 inch, each	1 50
9 inch, each	1 55
Collar Only	
8 inch, each	50
9 inch, each	65

No. 2 CHECK

8 inch, each	1 00
9 inch, each	1 00
10% Disc. on Adams No. 1 and No. 2 Check	
Diamond Smoke Pipe	
7 inch, doz.	\$2 00
8 inch, doz.	3 20
9 inch, doz.	4 20
10 inch, doz.	6 00

Adams' Sheet Metal

7 inch, doz.	\$1 60
8 inch, doz.	2 20
9 inch, doz.	2 60
10 inch, doz.	2 80
12 inch, doz.	3 50
14 inch, doz.	5 00

EAVES TROUGH

Galv. Crimpedge, crated	75-10%
Zinc, "Barnes"	60%

ELBOWS

Conductor Pipe	
Galv. plain or corrugated, round flat Crimp,	
28 Gauge	60%
26 Gauge	45%
24 Gauge	15%

Galv. Terne Steel

Plain Rd. and Rd. Corr.	
28 Ga.	60%
26 Ga.	45%
24 Ga.	15%

Square Corrugated

No. 28 Gauge	50%
26 Gauge	35%

Fortico Elbows

Standard Gauge Conductor Pipe, plain or corrugated.	
Not nested	70 & 5%
Nested Solid	70 & 5%

Sq. Corr., A. & B. & Octagon

28 Ga.	50%
26 Ga.	35%

Fortico

1", 1 1/4", 1 1/2"	45%
--------------------	-----

Copper

16 oz., all designs	40%
---------------------	-----

Zinc—

All styles	60%
------------	-----

ELBOWS—Steve Pipe

1-piece Corrugated, Uniform Blue "Milcor" No. 28 Gauge.	Doz.
5-inch	\$1 15
6-inch	1 25
7-inch	1 75

Special Corrugated

6-inch	\$1 00
7-inch	1 50

Adjustable—Uniform Blue

"Milcor" No. 28 Gauge, Uniform Blue.	
5-inch	\$1 60
6-inch	1 75
7-inch	2 10

WOOD FACES—60% off list.

FENCE

726-6-12 1/2% (100 rods)	\$28 68
1948-6-14 1/2% (100 rods)	43 62

FILES AND RASPS

Heller's (American)	50-10%
American	60-10%
Arcade	50%
Black Diamond	50%
Eagle	50%
Great Western	50%
Kearney & Foot	50%
McClellan	50%
Nicholson	50%
Simonds	60%

FIRE POTS

Geo. W. Diener Mfg. Co.	Ma.
No. 02 Gasoline Torch, 1 qt.	\$ 13
No. 9250, Kerosene, or Gasoline Torch, 1 qt.	6 50
No. 10 Tinner's Furn. Square tank, 1 gal.	11 30
No. 15 Tinner's Furn. Round tank, 1 gal.	10 70
No. 21 Gas Soldering Furnace	8 60
No. 110 Automatic Gas Soldering Furnace	10 50

GALVANIZED WARE

Pails (Galv. after made), 10-qt.	\$3 00
Tubs (Galv. after made), No. 1	5 75
No. 2	6 50

GLASS

Single Strength, A, all brackets	85%
Single Strength, B, all brackets	87%
Double Strength, A, all brackets	85%
Double Strength, B, all brackets	87%

HANGERS

Conductor Pipe	
Milcor Perfection Wire	35%
Milcor Triplex Wire	10%
Eaves Trough	
Milcor Steel (galv. after forming) from List	50%
Milcor Selflock H. T. Wire, List	10%

HOOKS

Conductor	
"Direct Drive" Wrought Iron for wood or brick	15%

HUMIDIFIER

"Front-Rank," Automatic	
In single lots	50%
In lots of 10 or more	50-5%
In lots of 25 or more	50-10%
Vapor pans, etc., each	50%

LIFTERS

Steve Cover	
Coppered	per gro. \$8 00
Alaska	per gro. 4 75

MALLETS

Tinnere	
Hickory	per doz. \$3 35

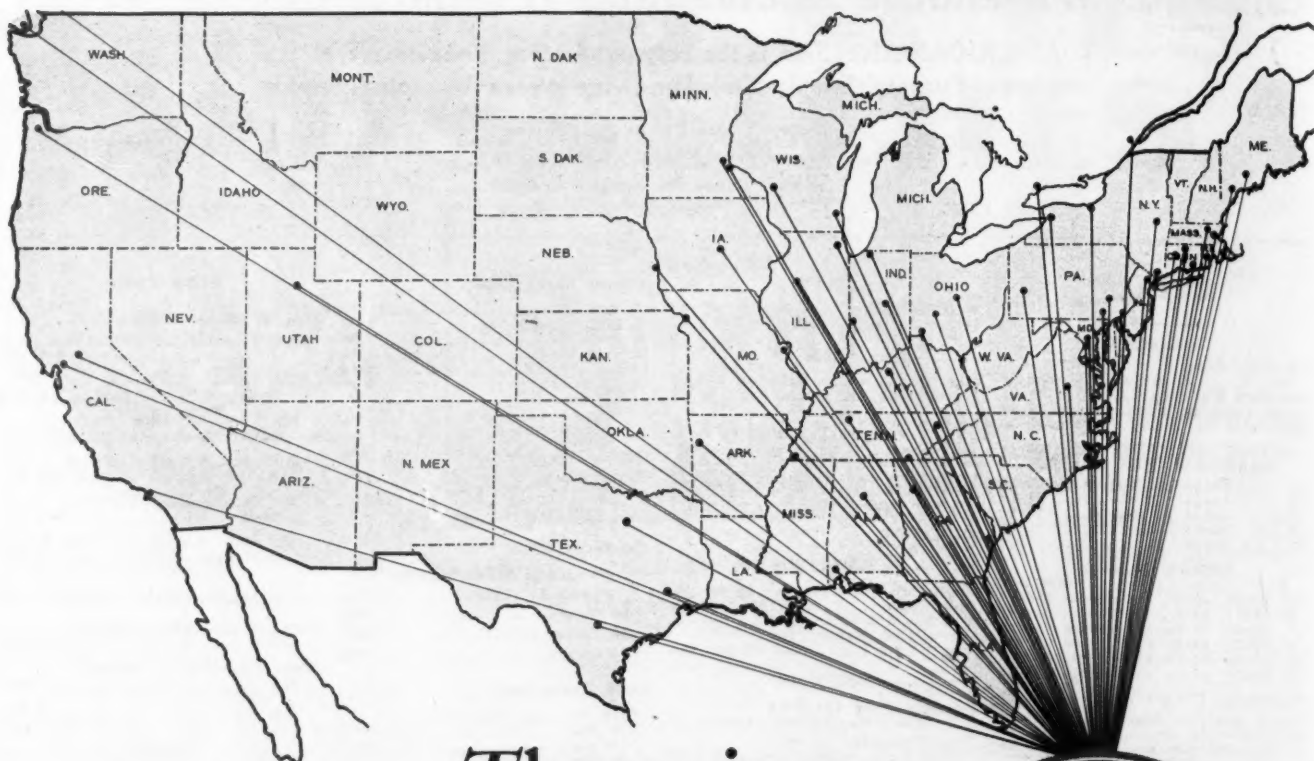
MITRES

Galvanized steel mitres	
28 Ga.	70
26 Ga.	60-30

NAILS

Cut Steel, base	\$4 00
Wire	
Common Wire, L. C. L.	3 20
Cement Coated	3 20

(Continued on page 112)



There is a
WAREHOUSE STOCK
 of ARMCO Ingot Iron
 near you

EVERY dot on the map above represents a city in which one or more members of the ARMCO Distributors' Association of America carry a warehouse stock of ARMCO Ingot Iron.

Each, too, serves the Ingot Iron Shops in his territory... the shops that use and recom-

mend this rust-resisting pure iron.

If you need ARMCO Ingot Iron, or if you want to enroll as an Ingot Iron Shop—and share in the many benefits of this business-building plan—ask any of the members' salesmen. Or, if you prefer, write direct to the Executive Offices at Middletown, Ohio.

ARMCO DISTRIBUTORS'

Executive Offices:

Mention AMERICAN ARTISAN in your reply—Thank you!

Any of these members will be glad to serve your needs

Albany, N. Y.

James Ackroyd & Sons
The Albany Steel & Iron Supply
Company, Inc.

Atlanta, Ga.

Conklin Tin Plate & Metal Co.

Baltimore, Md.

Arnold & Co.

Birmingham, Ala.

The George F. Wheelock Co.

Boston, Mass.

Brown-Wales Co.
Richards Co., Inc.

Bridgeport, Conn.

The Chapin & Bangs Co.

Buffalo, N. Y.

The J. M. & L. A. Osborn Co.
The Republic Metalware Co.

Cambridge, Mass.

Lamb & Ritchie Co.

Chattanooga, Tenn.

National Metal Products Co.

Chicago, Ill.

Milwaukee Corrugating Co.
The Republic Metalware Co.

Cincinnati, Ohio

Ferdinand Dieckmann Co.
Follansbee Bros. Co.
The F. H. Lawson Co.

Cleveland, Ohio

The J. M. & L. A. Osborn Co.

Columbus, Ohio

F. O. Schoedinger
Vorys Brothers, Inc.

Dallas, Texas

Moncrief-Lenoir Mfg. Co.

Dayton, Ohio

The F. H. Lawson Co.
The Ohio Metal & Mfg. Co.

Des Moines, Iowa

Luthe Hardware Co.

Detroit, Mich.

Follansbee Bros. Co.
The J. M. & L. A. Osborn Co.

Fall River, Mass.

The Congdon & Carpenter Co.

Fort Smith, Ark.

Hammond Sheet Metal Co.

Harlingen, Texas

Moncrief-Lenoir Mfg. Co.
Peden Iron & Steel Co.

Harrisburg, Pa.

York Corrugating Co.

Hartford, Conn.

The Blodgett & Clapp Co.

Houston, Texas

Moncrief-Lenoir Mfg. Co.
Peden Iron & Steel Co.

Huntington, W. Va.

Banks-Miller Supply Co.

Indianapolis, Ind.

Follansbee Bros. Co.
The Standard Metal Co.

Kansas City, Mo.

Milwaukee Corrugating Co.
Townley Metal & Hardware Co.

Knoxville, Tenn.

C. M. McClung & Co.

La Crosse, Wis.

Milwaukee Corrugating Co.

Lewiston, Me.

Brown-Wales Co.

Los Angeles, Calif.

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Holbrook, Merrill & Stetson

Louisville, Ky.

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Follansbee Bros. Co.

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Moncrief-Lenoir Mfg. Co.

Memphis, Tenn.

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Pidgeon-Thomas Iron Co.

Milwaukee, Wis.

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Milwaukee Corrugating Co.

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Turner Supply Co.

Nashville, Tenn.

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Mapes & Sprowl Steel Co.

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The Orleans Steel Products Co.,
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Greater New York

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Cook Corp.

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Peoria, Ill.

Ceco Steel & Wire Co.

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Richmond, Va.

Gordon Metal Co.

Rochester, N. Y.

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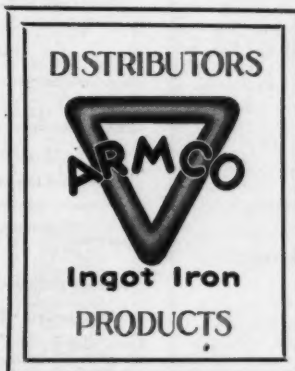
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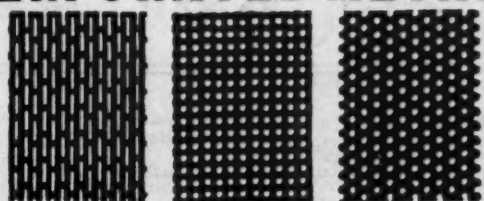
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PASTE	RIDGE ROLL
Asbestos Dry Paste:	Galv., Plain Ridge Roll, b'dld75-15-89
200-lb. barrel\$14 00	Galv., Plain Ridge Roll crated75-15'
100-lb. barrel 7 50	
50-lb. pall 4 25	
10-lb. bag 1 00	
5-lb. bag 55	
3 1/2-lb. cartons 25	
POKERS, FURNACE	SCREWS
Each\$0 75	Sheet Metal
POKERS, STOVE	7, 1/2x1/2, per gross\$0 53
Nickel Plated, coil handles, per doz. 1 10	No. 10, 1/2x3/16, per gross 83
Wrt Steel, str't or bent, per doz. \$0 75	No. 14, 1/2x1/2, per gross.. 83
PIPE	SHEARS, TINNERS' & MACHINISTS'
Conductor	Viking\$22 00
Cor. Rd., Plain Rd., or Sq.	Lennox Throatless
Galvanized	No. 1335%
Crated and nested (all gauges)75-7 1/2%	Shear blades10%
Crated and not nested (all gauges)75-2 1/2%	(f. o. b. Marshalltown, Iowa)
Furnace Pipe	SHIELDS, ADJUSTABLE RADIATOR
Double Wall Pipe and Fittings50 & 10%	No. 1 "Gem" 11" to 17"....30%
Single Wall Pipe, Round Galvanized Pipe50 & 10%	No. 2 "Gem" 14" to 24"....30%
Galvanized and Tin Fittings50 & 10%	No. 3 "Gem" 25" to 35"....30%
Lead	SHOES
Per 100 lbs.\$12 50	Galv. 28 Gauge, Plain or corrugated round flat crimp...60%
Stove Pipe	26 gauge round flat crimp...45%
"Milcor" "Titelock" Uniform Blue Stove	24 gauge round flat crimp...15%
28 gauge, 5 inch U. C. nested 11 00	
28 gauge, 6 inch U. C. nested 12 00	
28 gauge, 7 inch U. C. nested 14 00	
30 gauge, 5 inch U. C. nested 10 25	
30 gauge, 6 inch U. C. nested 11 00	
30 gauge, 7 inch U. C. nested 12 00	
T-Joint Made up	SNIPS, TINNERS
6-inch, 28 ga...per doz. \$ 3 40	Clover Leaf40 & 10%
All Elec	National40 & 10%
No. 11, all styles60%	Star50%
	MilcorNet
PULLEYS	SQUARES
Furnace Tackle...per doz. \$0 85	Steel and IronNet
.....per gto. 8 50	(Add for bluing \$3 per doz. net)
Furnace Screw (enameled)per doz. 75	MitreNet
	TryNet
	Try and BevelNet
	Try and MitreNet
	Fox'sper doz. \$6 00
	Winterbottom's10%
PUTTY	STOPPERS, FLUE
Commercial Putty, 100-lb. Kits\$3 15	Commonper doz. \$1 10
Malleable Iron Damper.....10%	Gem, No. 1per doz. 1 10
	Gem, flat, No. 3....per doz. 1 00
REDUCERS—Oval Stove Pipe	VENTILATORS
Per Doz.	Standard30 to 40%
7-6, 28-gauge, 1 doz. in carton\$2 00	
REGISTERS AND BORDERS	WIRE
Baseboard, Floor and Wall	Black annealed wire, No. 9, per 100 lbs.\$3 20
Cast Iron20%	Galvanized barb wire, per 100 lbs. 3 30
Steel and Semi-Steel33 1/2%	Cattle Wire—galvanized catch weight spool, per 100 lbs.. 3 30
Baseboard, 1 piece33 1/2-20%	Galvanized Plain Wire, No. 9, per 100 lbs..... 3 75
Baseboard, 2 piece33 1/2%	
Wall33 1/2%	
Adjustable Ceiling Ventilators33 1/2%	
Register Faces—Cast and Steel	
Japanned, Bronzed and Plated, 4x6 to 14x14.....33 1/2%	
Large Register Faces—Cast, 14x14 to 28x4250%	
Large Register Faces—Steel, 14x14 to 28x4260%	
Ventilating Register	
Per gross 9 00	
Small, per pair 30	
Large, per pair 50	

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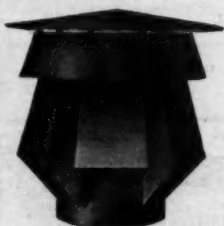
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Style A

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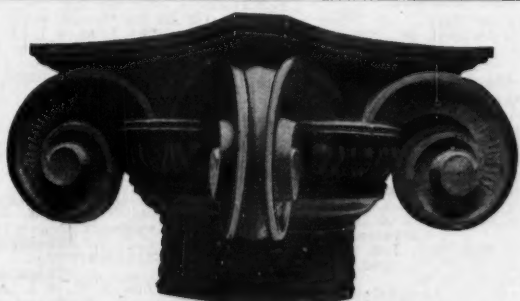


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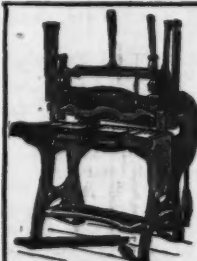
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(Continued from page 114)

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 Eller Mfg. Co., Canton, Ohio
 Henry Furnace & Fdy. Co., Cleveland, Ohio
 Lamneck Co., W. E., Columbus, Ohio
 Meyer & Bro. Co., F., Peoria, Ill.
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
 Mueller Furnace Co., L. J., Milwaukee, Wis.
 Osborn Co., The J. M. & L. A., Cleveland, Ohio

Pipe and Fittings—Stove.

Meyer & Bro. Co., F., Peoria, Ill.
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City

Pipe—Conductor.

Barnes Metal Products Co., Chicago, Ill.
 Berger Bros. Co., Philadelphia, Pa.
 Dieckmann Co., Ferdinand, Cincinnati, Ohio
 Eller Mfg. Co., Canton, Ohio
 Lupton's Sons Co., David, Philadelphia, Pa.
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
 New Jersey Zinc Sales Co., The New York, N. Y.

Presses.

La Salle Machine Works, Chicago, Ill.

Pipe Covering.

Sall Mountain Co., Chicago, Ill.

Punches.

Bertsch & Co., Cambridge City, Ind.
 Interstate Machinery Co., Chicago, Ill.
 La Salle Machine Works, Chicago, Ill.
 Peck, Stow & Wilcox Co., Southington, Conn.
 Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.

Punches—Combination Bench and Hand.
 Hyro Mfg. Co., New York, N. Y.

Punches—Hand.

Hyro Mfg. Co., New York, N. Y.

Putty—Stove.

Connors Paint Mfg. Co., Wm., Troy, N. Y.

Radiator Cabinets.

The Hart & Cooley Mfg. Co., New Britain, Conn.
 Tuttle & Bailey Mfg. Co., Chicago, Ill.

Radiators—Shields.

Beh & Co., Inc., New York, N. Y.

Register Shields.

Beh & Co., Inc., New York, N. Y.

Registers—Warm Air.

Auer Register Co., Cleveland, Ohio
 Eller Mfg. Co., Canton, Ohio
 Forest City-Walworth Run Foundries Co., Cleveland, Ohio
 Hart & Cooley Co., New Britain, Conn.
 Henry Furnace & Fdy. Co., Cleveland, Ohio
 Independent Register & Mfg. Co., Cleveland, Ohio
 Ku-No Register Mfg. Co., St. Louis, Mo.
 Lamneck & Co., W. E., Columbus, Ohio
 Meyer & Bro. Co., F., Peoria, Ill.
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
 Mueller Furnace Co., L. J., Milwaukee, Wis.
 Rock Island Register Co., Rock Island, Ill.
 Tuttle & Bailey Mfg. Co., Chicago, Ill.

Registers—Wood.

American Wood Register Co., Plymouth, Ind.
 Auer Register Co., Cleveland, Ohio
 Eller Mfg. Co., Canton, Ohio
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City

Regulators—Heat.

H. M. Sheer Co., Chicago, Ill.

Ridging.

Armco Distributors Ass'n of America, Middletown, Ohio
 Eller Mfg. Co., Canton, Ohio
 Lupton's Sons Co., David, Philadelphia, Pa.
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City

Rivets—Stove.

The Kirk-Latty Co., Cleveland, Ohio
 Lamson & Sessions Co., Cleveland, Ohio
 Ryerson & Son, Inc., Jos. T., Ch'go, N. Y., St. L., Det., Cleve.

Rods—Stove.

The Kirk-Latty Co., Cleveland, Ohio
 Lamson & Sessions Co., Cleveland, Ohio

Rolls—Forming.

Bertsch & Co., Cambridge City, Ind.

Roofing Cement.

Connors Paint Mfg. Co., Wm., Troy, N. Y.

Roof—Flashing.

Eller Mfg. Co., Canton, Ohio
 Milwaukee Corrugating Co., Milwaukee, Wis.

Roofing—Iron and Steel.

Armco Distributors Ass'n of America, Middletown, Ohio
 Central Alloy Steel Corp., Massillon, Ohio
 Eller Mfg. Co., Canton, Ohio
 Inland Steel Co., Chicago, Ill.
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
 Osborn Co., The J. M. & L. A., Cleveland, Ohio
 Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.

Roofing—Tin.

Eller Mfg. Co., Canton, Ohio
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
 Taylor Co., N. & G., Philadelphia, Pa.

Roofing—Zinc.

New Jersey Zinc Sales Co., The New York, N. Y.

Rubbish Burners.

Hart & Cooley Co., New Britain, Conn.

Schools—Sheet Metal Pattern Drafting.

St. Louis Technical Institute, St. Louis, Mo.

Schools—Warm Air Heating.

St. Louis Technical Institute, St. Louis, Mo.

Screws—Hardened Metallic Drive.

Eller Mfg. Co., Canton, Ohio
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
 Parker-Kalon Corp., 200 Varick St., New York

Screws—Hardened Self-Tapping, Sheet Metal.

Eller Mfg. Co., Canton, Ohio
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
 Parker-Kalon Corp., 200 Varick St., New York

Screens—Perforated Metal.

Harrington & King Perforating Co., Chicago, Ill.

Shears—Hand and Power.

Interstate Machinery Co., Chicago, Ill.
 Marshalltown Mfg. Co., Marshalltown, Iowa
 Peck, Stow & Wilcox Co., Southington, Conn.
 Ryerson & Son, Inc., Jos. T., Ch'go, N. Y., St. L., Det., Cleve.
 Viking Shear Co., Erie, Pa.

Sheet Metal Nails.

Deniston Co., Not Inc., Chicago, Ill.

Sheet Metal Screws—Hardened, Self-Tapping.

Parker-Kalon Corp., 200 Varick St., New York

Sheets—Black and Galvanized.

Armco Distributors Ass'n of America, Middletown, Ohio
 Central Alloy Steel Corp., Massillon, Ohio
 Eller Mfg. Co., Canton, Ohio
 Inland Steel Co., Chicago, Ill.
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
 Osborn Co., The J. M. & L. A., Cleveland, Ohio
 Ryerson & Son, Inc., Jos. T., Ch'go, N. Y., St. L., Det., Cleve.
 Taylor Co., N. & G., Philadelphia, Pa.

Sheets—Iron.

Armco Distributors Ass'n of America, Middletown, Ohio
 Central Alloy Steel Corp., Massillon, Ohio
 Eller Mfg. Co., Canton, Ohio
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
 Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.

Sheets—Tin.

Taylor Co., N. & G., Philadelphia, Pa.

Sheets—Zinc.

New Jersey Zinc Sales Co., The New York, N. Y.

Shingles and Tiles—Metal.

Eller Mfg. Co., Canton, Ohio
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City

Sifters—Ash.

Diener Mfg. Co., G. W., Chicago, Ill.

Sky Lights.

Eller Mfg. Co., Canton, Ohio
 Lupton's Sons Co., David, Philadelphia, Pa.
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City

Snips.

Peck, Stow & Wilcox Co., Southington, Conn.
 Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.
 Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.

Solder.

Eller Mfg. Co., Canton, Ohio
 Kester Solder Co., Chicago, Ill.
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City

Soldering Furnaces.

Burgess Soldering Furnace Co., Columbus, Ohio
 Diener Mfg. Co., G. W., Chicago, Ill.
 Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.
 Soldering Supplies, Kester Solder Co., Chicago, Ill.

Specialties—Hardware.

Diener Mfg. Co., G. W., Chicago, Ill.

Stars—Hard Iron Cleaning.

Fanner Mfg. Co., Cleveland, Ohio

Statuary.

Friedley-Voshardt Co., Chicago, Ill.
 Geroch Bros. Mfg. Co., St. Louis, Mo.
 Miller & Doing, Inc., Brooklyn, N. Y.

Stove Pipe Reducers.

Eller Mfg. Co., Canton, Ohio
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City

Tinplate.

Eller Mfg. Co., Canton, Ohio
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
 Osborn Co., The J. M. & L. A., Cleveland, Ohio
 Taylor Co., N. & G., Philadelphia, Pa.

Tools—Tinsmith's.

Bertsch & Co., Cambridge City, Ind.
 Dries & Krump Mfg. Co., Chicago, Ill.
 Hyro Mfg. Co., New York, N. Y.
 Interstate Machinery Co., Chicago, Ill.
 Maplewood Machinery Co., Chicago, Ill.
 Osborn Co., The J. M. & L. A., Cleveland, Ohio
 Peck, Stow & Wilcox Co., Southington, Conn.
 Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.
 Viking Shear Co., Erie, Pa.

Torches.

Burgess Soldering Furnace Co., Columbus, Ohio
 Diener Mfg. Co., G. W., Chicago, Ill.
 Ryerson & Son, Inc., Jos. T., Chgo, N. Y., St. L., Det., Cleve.

Trade Extension.

Sheet Steel Trade Extension Committee, Cleveland, Ohio

Trimnings—Stove.

Fanner Mfg. Co., Cleveland, Ohio

Vacuum Cleaner—Furnace.

Brillion Furnace Co., Brillion, Wis.
 National Super Service Co., Toledo, Ohio
 Williamson Heater Co., Cincinnati, Ohio

Ventilators.

Aeolus Dickinson Co., Chicago, Ill.
 Arax Company, Chicago, Ill.
 Berger Bros. Co., Philadelphia, Pa.
 Eller Mfg. Co., Canton, Ohio
 Friedley-Voshardt Co., Chicago, Ill.
 Kernchen Co., Chicago, Ill.
 Lupton's Sons Co., David, Philadelphia, Pa.
 Milwaukee Corrugating Co., Mil., Ch'go, La Crosse, Kan. City
 Standard Ventilator Co., Lewisburg, Pa.

Ventilators—Ceiling.

Hart & Cooley Co., New Britain, Conn.
 Henry Furnace & Fdy. Co., Cleveland, Ohio

Windows—Steel.

Lupton's Sons Co., David, Philadelphia, Pa.

Zinc.

New Jersey Zinc Co., The New York, N. Y.

Mention AMERICAN ARTISAN in your reply—Thank you!

WANTS AND SALES

Yearly subscribers to the **AMERICAN ARTISAN** may insert advertisements of not more than fifty words in our Want and Sales Columns **WITHOUT CHARGE** for three insertions.

Such advertisements, however, must be limited to help or situation wanted, tools or equipment for sale, to exchange or to buy, business for sale or location desired and must reach our office by Thursday of the week of publication. This privilege is not extended to manufacturers or jobbers—or those making a business of buying and selling used machines—employment agencies and brokers.

When sending advertisement state whether your name or blind number is to be used.

BUSINESS CHANCES

Lightning Rods—Dealers who are selling Lightning Protection will make money by writing to us for our latest Factory to Dealer Prices. We employ no salesmen and save you all overhead charges. Our Pure Copper Cable and Fittings are endorsed by the National Board of Fire Underwriters and hundreds of dealers. Write today for samples and prices. L. K. Diddle Company, Marshfield, Wis.

Will Sell—A sure opportunity for a real tinner with some capital. One of the best equipped and well established sheet metal shops in a city of 6,000. Write E-505, **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

For Sale — Well located corner lot, 66x132, with brick veneer building. Nice show room with plate glass front. Plenty room left for plumbing, heating and tin shop. Will sell my plumbers' and tinner's tools. Full set of each. Address John L. Bloyd, Bement, Ill. Phone 322. H-505

For Sale—An old well established sheet metal and roofing business in the city of Miami, Fla. Plenty of work. Owner retiring from business. Address Z-504, **AMERICAN ARTISAN**, 139 North Clark St., Chicago, Ill.

BUSINESS CHANCES

WANTED—To hear from owners of sheet metal and furnace shops located anywhere south of the Great Lakes who wish to retire and trust their business to a first class sheet metal and heating man who can invest \$500.00 in the shop and more in additional property. Please address complete particulars to P. O. Box 263, Pontiac, Mich. S-505

SITUATION WANTED

Sheet Metal Worker with 18 years of experience wants steady work. Thoroughly versed in all lines of sheet metal work. Can also do plumbing and heating. Address Z-505 **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

Situation Wanted—By first class heating man on steam, water, vapor or hot air. Can do plumbing and metal work. South or southwest preferred but will go anywhere. Can furnish pipe tools up to 4 inches. Address C-506 **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

Tinner and furnace installer wants position with good live hardware store in connection with shop. Can do plumbing, cut own patterns, figure and install according to the Standard Code. Reliable, competent neat workman. No boozers. Iowa preferred. Address D-506 **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

Practical Furnace and stove salesman with 10 years' experience selling furnaces and stoves on the road would like to represent a first class furnace or stove concern in Illinois or Iowa. Can give good references. Address E-506 **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

SITUATION WANTED—First class sheet metal worker and furnace installer. Know the standard code. Can read blue prints and draft my own patterns. Have had large heating, blow pipe and factory experience. Want steady position in small town, Wisconsin preferred. Am steady, reliable and sober. Thirty-eight years old and married. Address R-505, **AMERICAN ARTISAN**, 139 N. Clark St., Chicago.

SITUATION WANTED—By young married man 28 years old. High school and business college education. Five years' experience in roofing and general sheet metal work; the last three years in business for myself. Can go anywhere but prefer the South. Address P-505, **AMERICAN ARTISAN**, 139 N. Clark Street, Chicago.

HELP WANTED

Wanted—Reliable tinner and plumber for small town (no boozers or loafers). Must be strictly honest. Good steady job for the right man. Prefer one capable of running store if needed. State experience and wages expected. Address F-505, **AMERICAN ARTISAN**, 139 N. Clark St., Chicago, Ill.

HELP WANTED

WANTED—Young man, over 21, high school graduate, with some experience at tinner's trade and not less than \$700.00 to invest. Wonderful chance to make big money. Boozers fighter not wanted. References required. Write for further information. Address O-505, **AMERICAN ARTISAN**, 139 N. Clark Street, Chicago.

Wanted — Combination Plumber and sheet metal worker at once. Reasonable wages. Write to C. W. Beer, Alexandria, Nebr. Y-505

WANTED AT ONCE—All around man to do class of work that comes in a country tin shop. Must be able to do plumbing and drive a car. Want a sober man and one who will be on the job. Wages \$30.00 week, year around. Address O. L. Doward, Mt. Morris, Illinois. M-505

BOOKS

For Sale—Closing out entire stock of cast furnaces, we offer subject to prior sale the following, all f. o. b. Baraboo: 2—2142B furnaces at \$76.40; 7—2346B at \$90.70; 7—2550B at \$113.00; 1—2757B at \$162.00; 1—154D at \$139.80. These are Rudy furnaces. 1 Premier D52. We also offer 200 10x12 Tambo finish S. W. registers, slightly marred, at \$0.45 each. Address Ott Hardware Co., Baraboo, Wis. D-505

TINNERS' TOOLS

We are in the market for a four, five or six foot second-hand hand-power roll that will handle fourteen gauge iron or lighter. Address, giving condition and price, to Moeller Furnace Co., 114 South 12th Street, Fort Dodge, Iowa. W505

WANTED—Ten foot brake, Southwick Metal Co., 1913 State Street, Granite City, Illinois. L-505

SMASH COSTS

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\$ \$ \$ \$
\$ \$ \$ \$ \$

Machinery at prices that will pay to investigate in the largest stock of Sheet Metal Machinery and Tools in the Middle West.

THIS WEEK'S BARGAINS

16 ga. Marshalltown Throatless Shear, \$65.00

42" Comb. Brake & Folder 16 ga. cap, \$90.00

Interstate Machinery Co.

601 W. Monroe St. Chicago, Ill.

Have You Read the Special Article
which appears in the center of this issue?

THIS special story and others which run regularly in **AMERICAN ARTISAN** are written not only to show you what other contractors are doing but to help you to get similar work. Show these articles to prospects and architects—show them that this is the kind of work You can do.

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MEN WANTED

**Exceptional Opportunity—
Write Today!**

Salesmen with practical plumbing and heating experience wanted to take charge of department in Montgomery Ward & Company chain stores, located throughout Illinois, Wisconsin, Iowa, Indiana, and Michigan. Unusual opportunity for advancement. Write fully. Consideration based upon information in first letter. Address, X505, American Artisan, 139 N. Clark St., Chicago, Ill.

YOU CAN'T SOLDER ALUMINUM

Unless you have a special solder or flux, you cannot solder aluminum. With my aluminum solder, you can solder aluminum just like scores of tinner's are doing every day. Samples sent free on request.—H. T. Brant, 1009 N. Hickory St., Champaign, Ill. K505

BOOKS

Exhaust and Blow Piping, by Hayes—Exhaust and Blow Piping has had an unusually big demand. A fresh supply is now off the press and is in our hands for immediate delivery. It has an invaluable treatise on the planning, cost, estimation and installation of fan piping in all its branches giving an necessary guidance in fan work blower and separator construction. 159 pages, 5x8. 51 figures. Cloth, \$2.00. Order from Book Dept., AMERICAN ARTISAN, 139 North Clark Street, Chicago, Illinois.

The Standard Code Computing Rule, which is adapted from Article III of the 5th Edition of the Standard Code, is being used by warm air heating men all over the country. Here is what the Computing Rule will determine: (1) The warm air pipe and register areas for first, second and third floor rooms. (2) The areas necessary for 70° inside temperature when the outside temperatures are zero, 10, 20 and 30 degrees above or below zero. (3) The areas from the contents, glass, wall, roof and ceiling. The factors as covered in Table "A" are represented in accurate form. (4) The areas for rooms having one, one and one-half and two air changes per hour. (5) The unusual exposure requirements as the 10% for east and west and 15% for northeast, north and northwest rooms. Rule is circular, measuring 5½ inches in diameter and ¼ inch thick, being made of specially prepared celluloid. Washable and unbreakable.

Price, \$3.00, postpaid, from Book Dept., AMERICAN ARTISAN, 139 N. Clark St., Chicago, Ill.

SPECIAL NOTICE OPPORTUNITY BRANCH MANAGER

One of the country's largest and longest established manufacturers of warm air furnaces and heating equipment desires the services of wide-awake men to take charge of direct factory branches in various cities. The proposition will be a substantial salary, and profit-sharing arrangement in addition. The merchandise is well and favorably known to the public.

Unusual cooperation will be given, intending that the man dominate the heating business in the town in which they locate him. The man chosen must be that rare combination—executive salesman, and collector. He will be given full charge of the entire branch. He will be able to present a very complete service to the home owner or home builder, for a complete heating plant direct from the factory.

This is an exceptional opportunity for a reliable and energetic man. Heating experience is not absolutely necessary, although applicants with warm air heating experience or knowledge will naturally be given preference, other things being equal. This would also warrant attention from one now engaged in the heating business with limited capital or an unsatisfactory line, who feels he could do bigger things with the proper backing. Probably you know such a man. If so, refer him to this advertisement also.

No attention will be given your reply unless you set forth clearly, the following information: 1, age; 2, married; 3, have you car or truck, if so what kind; 4, a definite record of what you have been doing for the past ten years, together with earning power; 5, what you are doing now; 6, why you wish to change; 7, when you can leave; 8, what your living expenses are at present; 9, what salary you would wish to start with; 10, in what town you prefer to operate; 11, tell us in your own language what you think you can do with the proper line and proper working capital.

All replies will be strictly confidential.

Address, L. L. S., 337 West Fifth Street, Cincinnati, Ohio. J-505

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paid in advance

No nuts to loosen when fastenings to sheet metal are made with these **Self-tapping Screws**

SHEET metal assemblies made with Hardened Self-tapping Sheet Metal Screws are secure assemblies. No nuts to loosen or come off.

And less time and effort is required to make fastenings with these unique Screws. No need to fumble with nuts and washers . . . no troublesome tapping—no tapping plates. Just turn the Self-tapping Screw into a drilled or punched hole with an ordinary screwdriver. It takes but a fraction of the time and considerably less effort than other methods.

As the Self-tapping Screw is turned in, it cuts its own thread in the metal, binding the members firmly together.

Thousands of sheet metal workers have tested these Screws for their own work and found them the easiest, quickest and cheapest means of making secure sheet metal assemblies. We want you to make the same test—try them on your own work. We will furnish suitable samples, free.

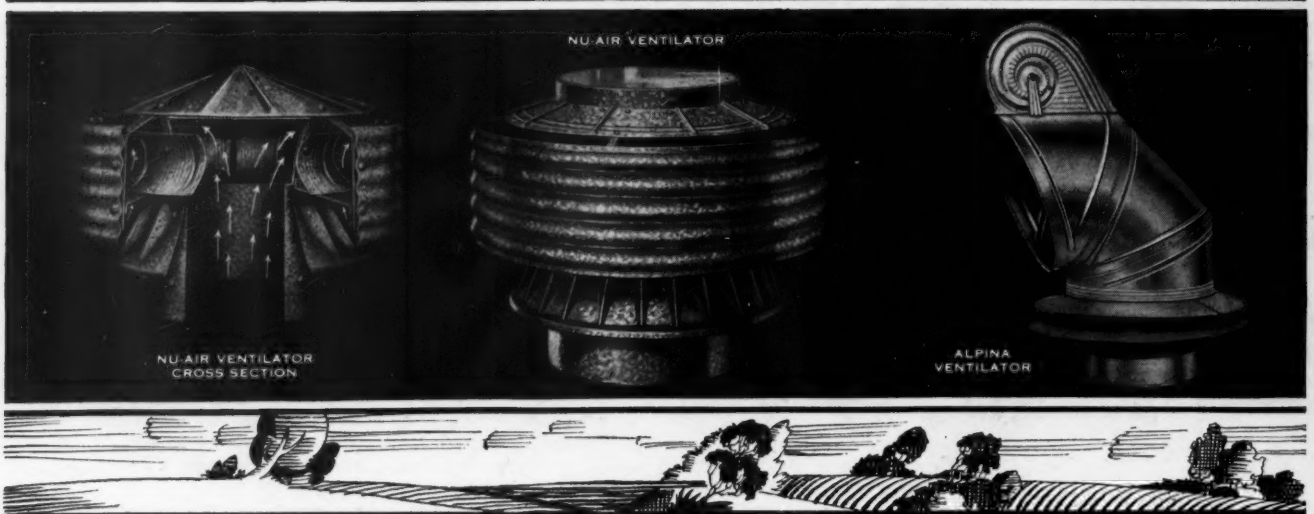
PARKER-KALON CORP., 190 Varick Street, NEW YORK, N. Y.

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PARKER-KALON
HARDENED SELF-TAPPING
Sheet Metal Screws

PATENTED
APR. 1, 1919—No. 1299232 — MAR. 28, 1922—No. 1411184
AUG. 14, 1923—No. 1465148 — FEB. 10, 1925—No. 1526182
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ONE of Milcor's most popular skylights . . . "The Torpedo" Ventilating Type. Effective as a ventilator, and ideal source of light. By a simple controlling mechanism, a movable shutter quickly and easily regulates the amount of ventilation. Equipped with automatic fire-proof feature.

The Milcor line of skylights meets every demand. They are made in a variety of shapes . . . some with the glass laid in putty and others having the Milcor "Puttyless" design.

There is also a range of selection in Milcor Ventilators . . . to meet particular needs. Milcor "Nu-Air" Ventilators (see cut away view above) have an unusually large capacity for exhausting impure air. Constant circulation of fresh air is assured. No down draft regardless of height of ventilator and direction of wind. Furnished with either steel or wired glass top. The Alpina Revolving Syphon Ventilator has remarkable efficiency. Sensitive to air currents . . . revolves on brass rust-proof ball-bearings completely enclosed.

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Sales Offices: Boston, Mass., Detroit, Mich., Atlanta, Ga., Little Rock, Ark., Minneapolis, Minn.
Eastern Plant: THE ELLER MANUFACTURING CO., Canton, Ohio

MILCOR PRODUCTS



Vol.

